



Coated Products Limited

Bawal Works : Plot 7-12,
Sector 6, IMT Bawal, Dist. Rewari - 123501
Haryana, India.
CIN : U27100MH1985PLC037346
Phone : +91 1284 271500
FAX : +91 1284 271500
Website : www.jsw.in

Date: 8th August 2025

To,

The Director,
Northern Regional Office (MoEF&CC),
Bays No. 24 -25,
Sector- 31-A, Dakshin Marg,
Chandigarh-160030

Subject: Submission of six-monthly compliance report for session June 2025 of JSW Steel Coated Products Ltd (Cold Rolling Division) Bawal Works, at Plot No. 7 to 12, IMT Bawal Road, Sector 6, Bawal, 123501, Rewari, Haryana.

Respected Sir,

In reference to the above-mentioned subject, we are hereby submitting six monthly compliance reports for session June 2025 of our JSW Steel Coated Products Ltd (Cold Rolling Division) Bawal Works at Plot No. 7 to 12, IMT Bawal Road, Sector 6, Bawal, 123501, Rewari, along with the necessary annexure for your kind perusal.

We understand that the above is in line with the requirement of the Ministry of Environment & Forest, Climate Change.

Thanking you,

Yours Sincerely

For JSW Steel Coated Products Limited
Ms JSW STEEL COATED PRODUCTS LIMITED.



Authorized Signatory

(Authorized Signatory)

Enclosure: Soft copy of Report in C.D.

Copy to: Haryana State Pollution Control Board, C-11 Sec-6, Panchkula, Haryana



Part of O.P. Jindal Group

Regd. Office : JSW Centre,
Bandra Kurla Complex,
Bandra (East) Mumbai 400 051

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“COMPLIANCE REPORT JUNE 2025”

SPECIFIC AND GENERAL CONDITIONS AS PER THE ENVIRONMENTAL CLEARANCE (ANNEXURE-1) FOR CONSTRUCTION AND OPERATION PHASES OF THE PROJECT

Sl. No.	Conditions	Proposal
A. Specific Conditions		
1.	A Green Belt/area of 5762 sqm (10.01%) at the project site in addition to the 30% Green Area developed by HSIIDC Bawal shall be developed in a time frame of two years covering with native species within plant premises and avenue plantation (as committed by PP).	Complied , 5762 SQM (10.01%) at the project site in addition to the 30% Green Area has been developed by HSIIDC Bawal covering with native species within plant premises and avenue plantation as committed. Photographs have been attached in compliance report of December 2024.
2.	Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface	Complied , greening and Paving has been implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface.
3.	No ground water will be extracted	Complied , no ground water has been used in this project, water supply has been provided by HSIIDC, Bawal Division. Water bill are attached as Annexure-2 .
4.	The project proponent shall maintain ETP and treated water will be reused and maintain the ZLD status.	Complied , effluent generated from the process is being treated in the ETP installed at the project site and no treated water has been discharged outside the premises and we are achieving ZLD at the project site. Photograph and design scheme of ETP have been attached in compliance report of December 2024.
5.	The Oil scum and oily waste from plant shall be sent to registered re-cyclers.	Complied , the Oil scum and oily waste from plant is being sent to registered re-cycler. Copy of Form-10 is attached as Annexure-3 .
6.	All internal road and connecting road from project site to main highway shall be maintained with suitable Indian Standards as per the traffic load.	Complied , all internal roads and connecting road from project site to main highway have been maintained with suitable Indian Standards as per the traffic load.
7.	Performance test shall be conducted on all pollution control systems every year.	The same is under process and the reports of performance test conducted on all pollution control systems have been attached as Annexure-4 .
8.	Particulate matter emission from stacks shall be less than 150 mg/Nm ³ .	Complied , the parameters of particulate matter emission from 5TPH & 6 TPH boiler stacks and pickling stack are found below the permissible limit of 150 mg/Nm ³ . Test report of are attached as Annexure-5 .

Compliance Report for the Environmental clearance of the project “JSW Steel Coated Products Ltd (Cold Rolling Division) Bawal Works” located at Plot No. 7 to 12, IMT Bawal Road, Sector 6, Bawal, 123501, Rewari, Haryana

9.	Hazardous waste generated i.e. Empty Barrel/Containers contaminated with Chemicals, Used Oil shall be sent to registered re-cyclers and the Oil soaked clothes/residues shall be sent to TSDF and Acid Recovery Plant shall be maintained	Complied , we have obtained HW authorization vide NO. HWM/REW/2024/51386313 dated 14.11.2024. Same has been attached in compliance report of December 2024.
10.	The progress made in CER/EMP Budget expenditure shall be submitted along with six monthly compliance report to the IRO and also upload on the company web site.	Agreed , EMP expenditure is attached as Annexure-6 .
11.	The gaseous emission from various processes should conform to the load/ mass based standards as prescribed by the Ministry of Environment & forest and the Central/State Pollution Control Board from time to time. At no time the emission level should go beyond the prescribed standards.	Complied , monitoring of gaseous emissions from various processes is being done on regular basis. Latest Test Report of gaseous emission from various processes is attached as Annexure-5.
12.	Particulate matter emission from stacks shall be as per the stipulated guidelines of SPCB/CPCB.	Complied . Particulate matter emission from stacks are found in the permissible limit and test report is attached as Annexure-5.
13.	Water meter to be installed at every inlet point of fresh water uptake and also at circulation point and regular record to be maintained.	Complied , water meter has been installed at every inlet point of fresh water uptake and regular record maintained in the log book.
14.	The project proponent shall install 24 x 7 continuous effluent monitoring system with respect to standards prescribed in environment (Protection) Rules 1986 and its amendments from time to time and connect it to SPCB and CPCB online servers and calibrate the system from time to time according to equipment suppliers specification through labs recognized under Environment (Protection) Act 1986 or NABL accredited laboratories.	Agreed , we are in process of purchasing and installation continuous effluent monitoring system and the same will be complied later.
15.	Garland drain and collection pit shall be provided for each stockpile in case of runoff in the event of heavy rains and to check the water pollution due to surface runoff.	Agreed , this condition has been complied at the time of construction phase.
16.	A resource efficiency group shall be created to set annual targets for resource conservation and annual reports shall be furnished to RO.	Partially Complied , resource efficiency group has been created to set annual targets for resource conservation which is attached as Annexure-7 and annual report will be submitted with the next compliance report in December 2025.

Compliance Report for the Environmental clearance of the project “JSW Steel Coated Products Ltd (Cold Rolling Division) Bawal Works” located at Plot No. 7 to 12, IMT Bawal Road, Sector 6, Bawal, 123501, Rewari, Haryana

17.	All internal roads should be concreted/paved. Proper lighting and proper pathway inside the factory premises should be constructed to ensure safe vehicular movement. Provision of separate pathway for entry and exit of vehicles should be considered. Vehicles should confirm to pollution under control (PUC) norms. Proper housekeeping shall be maintained within the premises. Solar lighting should be used as far as practicable complying with HAREDA norms, if applicable.	Complied , all internal roads have been concreted/paved. Proper lighting and proper pathway inside the factory premises have been achieved to ensure safe vehicular movement. Vehicles entering the project premises are PUC certified. Good housekeeping has been maintained within the premises. Photographs showing the same have been attached in compliance report of December 2024.
18.	Vehicles carrying a raw material shall be covered with tarpaulin to prevent spreading of dust during transportation.	Complied , construction of industrial plant has already been done. We have obtained Post-Facto EC for our project as per the notification with file No. IA-J-11011/446/2021-IA-II(IND-I) dated 25.06.2024. During the operational phase, we are sending our finished goods/ raw materials by covering with proper tarpaulins. Photograph of the same is attached as Annexure-8 .
19.	Regular Sweeping of Road shall be practiced with vacuum sweeping machine or water sprinkling to minimize dust.	Complied , sweeping of Road is done on daily basis. Photograph of the same is attached as Annexure-9 .
20.	Adequate measures to be adopted for control of fugitive emissions. Regular water sprinkling should be done to control the fugitive emissions.	Complied . Monitoring of ambient air quality with NABL/MoEF & CC approved laboratory has been carried out. All the parameters are found within the limits. Ambient air test report is attached as Annexure-10 .
21.	Health and safety of workers should be ensured. Workers should be provided with adequate personnel protective equipment and sanitation facilities. Occupational health surveillance of workers shall be done on a regular basis and record maintained as per factories act.	Complied , workers have been provided with adequate personnel protective equipment and sanitation facilities. Further, log book of Occupational health surveillance of workers is attached as Annexure-11 .
22.	Adequate measures to be adopted to ensure industrial safety. Proper fire detection & protection systems to be provided to control fire and explosion hazards.	Complied , adequate measures have been adopted to ensure industrial safety. Also, fire detection & protection systems are provided to control fire and explosion hazards as per the norms of Fire and Emergency Services, Haryana. Copy of fire NOC has been attached in compliance report of December 2024.
23.	Emergency preparedness plan based on the Hazard Identification and Risk Assessment	Complied , Emergency Preparedness Plan, HIRA and DMP has been implemented and is attached as

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	(HIRA) and Disaster Management Plan (DMP) shall be implemented.	Annexure-12.
24.	The project proponent carry out heat stress analysis for the workman who work in high temperature work zone and provide personal protection equipment as per the norms of the factory act.	Complied, heat stress analysis report is attached as Annexure-13.
B. Statutory Compliance		
1.	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.	Noted.
2.	This Environmental clearance 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.	Noted.
1.	Air quality Monitoring and Preservation	
i.	The project proponent shall monitor fugitive emissions in the plant premises at least once in every six month through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories.	Complied. Monitoring of ambient air quality with NABL/MoEF & CC approved laboratory has been carried out. All the parameters are found within the limits. Ambient air test report is already attached as Annexure-10.
ii.	Appropriate Air Pollution Control Measures (APCM) shall be provided for all the air pollution generating points, so as to comply prescribed stack emission standards.	We have installed wet scrubber for pickling stack.
iii.	The project proponent shall provide leakage detection for Gaseous Fuel Storage Tanks.	Complied, we have already provided leakage detection system. We are diligently following the guideline of Petroleum Explosive Safety Organization (PESO). NOC obtained from PESO has been attached in compliance report of December 2024.
iv.	The project proponent shall design the ventilation system for adequate air changes as per prevailing norms for all motor houses, Oil Cellars wherever required.	Noted.

2.	Water Quality Monitoring and Preservation	
i.	The domestic wastewater will be treated through Sewage Treatment Plant in adjacent unit HRD (as committed by PP) to meet the prescribed standards.	Complied , domestic wastewater generated at the project site is treated with Sewage Treatment Plant installed at the Project site. Monitoring reports for inlet and outlet for existing STP's at the project site has been attached as Annexure-14 and Annexure-15 respectively.
ii.	The project proponent shall maintain the ETP and treated water will be reused and maintain the ZLD status.	Complied , effluent generated from the process is being treated in the ETP installed at the project site and no treated water has been discharged outside the premises and we are achieving ZLD at the project site.
III.	Noise Monitoring and Prevention	
i.	Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Integrated Regional Office (IRO), MoEF & CC as a part of six-monthly compliance report.	Complied . Test results of ambient noise during day and night are within the limits as per CPCB standards. Monitoring reports of ambient noise are attached as Annexure-16 .
IV.	Energy Conservation measures	
i.	Energy conservation measures will be adopted such as adoption of renewable energy and provision of LED lights etc., to minimize the energy consumption.	Complied , LED lights have already been installed in the inside and outside areas and is integral part of the project design.
ii.	Waste Heat Recovery System shall be provided as per technical feasibility.	This condition is not applicable as Waste Heat Recovery System is not required as per the technical feasibility.
iii.	PGreen Hydrogen Plant will be installed as committed by project proponent.	This condition is not applicable to our project and we have not committed the installation of PGreen Hydrogen Plant at the time of obtaining EC.
V	Waste Management	
i.	Waste Acid Recovery Plant shall be provided.	Noted . We are working on the feasibility of installation of Waste Acid Recovery Plant with the help of third party expert agency and the same will be installed accordingly.
ii.	Interleaving paper shall be recycled to maximum possible extent.	Agreed .
iii.	Kitchen waste shall be composted.	Complied . We are giving kitchen waste to authorized third party vendor. Certificate of the same is attached as Annexure-17 .
VI	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 including plantation.	Complied , GHG emissions inventory report is attached as Annexure-18 .
ii.	Project proponent shall submit a study	Complied , a detailed study report on De-

Compliance Report for the Environmental clearance of the project “JSW Steel Coated Products Ltd (Cold Rolling Division) Bawal Works” located at Plot No. 7 to 12, IMT Bawal Road, Sector 6, Bawal, 123501, Rewari, Haryana

	report on De-carbonization program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture use and storage and offsetting strategies.	carbonization program is attached Annexure-19 .
VII.	Public Hearing And Human Health Issues	
i.	Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan shall be implemented.	Complied , Emergency preparedness plan based on the Hazard identification and Risk Assessment (HIRA) and Disaster Management Plan has been implemented.
ii.	The project proponent shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act.	Complied , all the workers working at the project site have been provided with PPE kits to avoid any kind of health problems.
iii.	Occupational health surveillance of the workers shall be done on a regular basis and record shall be maintained.	Complied , Occupational health surveillance of the workers is done on regular basis.
VIII.	Environment Management	
i.	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020 as part of Corporate Environment Responsibility(CER)activity.	As per OM F.No.22-65/2017-IA.III dated 30 th September 2020, the funds earmarked for CER will be spend on the activities of Environment management plan at the project site.
ii.	The company shall have a well laid down environmental policy duly approved by the Board of Directors/Occupier.	Complied , Corporate Environment Policy has been attached as Annexure-20 .
iii.	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 report to the head of the organization.	Complied , a separate Environmental Cell both at the project and company head quarter level has been set up. Copy of the same is attached as Annexure-21 .
IX.	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.	Complied . Advertisement in local newspaper has been given for the public announcement. Copy of the same is attached as Annexure-22 .
ii.	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in	Noted .

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	addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.	
iii.	The project proponent shall upload the status of compliance of the stipulated environment clearance conditions, including results of monitored data on their website and update the same on half-yearly basis.	Complied , the same is done on half yearly basis regularly.
iv.	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.	Complied , we have hired NABL/MoEF&CC approved laboratory for regular monitoring of ambient air quality parameters to analyze the impact on air quality in upwind and downwind direction.
v.	The project proponent shall submit six-monthly reports on the status of the compliance of the stipulated environmental conditions on the website of the ministry of Environment, Forest and Climate Change at environment clearance portal .	Complied , the same is done on half yearly basis regularly.
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.	Complied , the environmental statement for the current financial year is attached as Annexure-23 .
vii.	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.	Noted , we are abiding by all the commitments and recommendations made in the EIA/EMP report, commitment made during Public Hearing and during the presentation to the Expert Appraisal Committee, Haryana.
viii.	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).	Agreed , no further expansion or modification in the plan will be carried out without prior approval of the Ministry of Environment, Forests and Climate Change (MoEF&CC) / SEIAA, Haryana. We will obtain fresh environmental clearance under EIA notification 2006 for any expansion or modification in the plan.
ix.	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.	Agreed .

Compliance Report for the Environmental clearance of the project “JSW Steel Coated Products Ltd (Cold Rolling Division) Bawal Works” located at Plot No. 7 to 12, IMT Bawal Road, Sector 6, Bawal, 123501, Rewari, Haryana

x.	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.	Agreed.
xi.	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.	Agreed.
xii.	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.	Agreed.
xiii.	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.	Noted.



File No: IA-J-11011/446/2021-IA-II(IND-I)
Government of India
Ministry of Environment, Forest and Climate Change
(Issued by the State Environment Impact Assessment
Authority(SEIAA), HARYANA)



Date 25/06/2024



To,

JSW STEEL COATED PRODUCTS LIMITED
 Plot No- 7 to 12, IMT Bawal Road, Sector-6, Bawal, REWARI, HARYANA, 123501
 jswsteelplant023@gmail.com

Subject: Environment Clearance of the project “JSW Steel Coated Products Ltd (Cold Rolling Division) Bawal Works” located at Plot No. 7 to 12, IMT Bawal Road, Sector 6, Bawal 123501, Rewari, Haryana

Sir/Madam,

has reference to your Proposal No. SIA/HR/IND1/453437/2023 dated 14.12.2023 and subsequent letter dated 05.01.2024 and 16.05.2024 for obtaining Environmental Clearance under Category 3(a) of EIA Notification dated 14.09.2006 along with submission of **due Scrutiny fee (as applicable) of 2,00,000/- vide DD No. 016938 dated 06.03.2023 (in compliance of Haryana Government, Environment & Climate Change, Department Notification No. DE&CCH/3060 dated 14.10.2021)**. The proposal has been appraised as per prescribed procedure in the light of provisions under the EIA Notification, 2006 on the basis of the mandatory documents enclosed with the application viz., Form-1, Form1-A, Conceptual Plan, EIA/EMP report based on Approved ToR and additional clarifications furnished in response to the observations of the State Expert Appraisal Committee (SEAC) constituted by MoEF& CC, GoI vide their Notification dated 21.02.2022, in its meeting held on 05.01.2024 and **recommended to SEIAA for Grant of Environment Clearance.**

2. The particulars of the proposal are as below :

(i) EC Identification No.	
(ii) File No.	IA-J-11011/446/2021-IA-II(IND-I)
(iii) Clearance Type	Fresh EC
(iv) Category	B1
(v) Project/Activity Included Schedule No.	3(a) Metallurgical Industries (ferrous and non ferrous)
(vii) Name of Project	JSW Steel Coated Product Ltd (Cold Rolling Division) Bawal Works
(viii) Name of Company/Organization	JSW STEEL COATED PRODUCTS LIMITED
(ix) Location of Project (District, State)	REWARI, HARYANA
(x) Issuing Authority	SEIAA

**(xi) Applicability of General Conditions as per
EIA Notification, 2006** No

3. It is inter-alia, noted that the project involves in the Environment Clearance of the project “JSW Steel Coated Products Ltd (Cold Rolling Division) Bawal Works” located at Plot No. 7 to 12, IMT Bawal Road, Sector 6, Bawal 123501, Rewari, Haryana.

4. The basic details of project are as under:

Sr. No.	Particulars	
	Online Proposal No. SIA/HR/IND1/453437/2023	
1.	Latitude	28°5'55.91" N to 28°5'48.67" N
2.	Longitude	76°34'52.26" E to 76°34'51.28" E
3.	Plot Area	57600 SQM
4.	Proposed Ground Coverage	35956 SQM
5.	Proposed FAR	35956 SQM
6.	Non-FAR Area	1981SQM
7.	Total Built Up area	37937 SQM
8.	Total Green Area with Percentage	5762 SQM (10.01%) at the project site in addition to the 30% Green Area developed by HSIIDC Bawal.
9.	Rainwater Harvesting Pits	08 Nos RWH PITS
10.	STP Capacity	60 KLD
11.	ETP Capacity	106 KLD
12.	Total Parking	8640 SQM
13.	Maximum Height of the Building (m)	Below 15 Mtrs.
14.	Power Requirement	8500 KW
15.	Total Water Requirement	293 KLD
17.	Domestic Water Requirement	63 KLD
18.	Fresh Water Requirement	189 KLD
19.	Treated Water Requirement	104 KLD
20.	Wastewater Generated	132 KLD
21.	Solid Waste Generated	305.28 Kg/day
22.	Biodegradable Waste	152.64 Kg/day
23.	Number of Towers	01Nos
24.	Dwelling Units/ EWS	Nil
25.	Saleable Units	Nil
26.	Basements	01 Nos
30.	Stories	B+G+2
31.	R+U Value of Material used (Glass)	U = 3.5 W/sqms, R = 0.91
32.	Total Cost of the project:	i) Land Cost 71.78 Cr ii) Development Cost 496.35 Cr Total 568.13 Cr
33.	Total EMP Cost	28.34 Cr (4.98%)
34.	Increment Load PM 2.5	1.32g/m3
	in respect of PM 10	0.56g/m3
	SOx	2.72g/m3
	NOx	5.96g/m3

CO 0.06g/m3

Raw Material			
Quantity	Existing	Expansion	Total Quantity
Hot Rolling	50 MT/Day	900 MT/Day	1650 MT/Day
35. Sheets	8.5 MT/Day	10 MT/Day	18.5 MT/Day
Zinc Color	2.5 KL/Day	3.25 KL/Day	5.75 KL/Day
Hydrochloric Acid	--	-20 KL/Day	20 KL/Day
Production			
Capacity			
Cold Rolled	Existing	Expansion	Total Capacity
Coils	450 MT/Day	800 MT/Day	1250 MT/Day
36. Colour Coated	200 MT/Day	100 MT/Day	300 MT/Day
Coils	-	650 MT/Day	650 MT/Day
Pickled Coils	350 MT/Day	730 MT/Day	1080 MT/Day
Galvanized Sheet			

Table 2 - EMP Detail

EMP Cost already incurred during Construction Phase & operation phase of Existing Unit

S. No.	Particulates	Capital Cost [inLakh]	Recurring Cost [in Lakh] from 2013 to 2022
1	Air pollution control – Air pollution control devices, Stacks, Fume Extraction System, Water Sprinkling	200	100
2	Water pollution control - ETP and STP & Rainwater Harvesting	250	540
3	Solid wastes management – Dust Bins, Storage Facility of Hazardous Waste	100	150
4	Green area development	40	27
5	Environmental monitoring	0	42.93
6	PPE to Labours	60	50
7	Fire Safety & Fire Equipments	150	200
Total Cost		800	1109.93
Total EMP Cost		1909.93	

EMP Cost proposed during Construction Phase of Expansion Unit

EMP Cost proposed during Operation Phase of Expansion Unit

S. No.	Particulars	Capital Cost (Lakhs)
1)	Water pollution control - ETP and Rainwater Harvesting	40
2)	Cost During Construction Phase	40
Total Proposed EMP Cost During Construction Phase		40

S. No.	Particulates	Capital Cost [in Lakh]	Recurring Cost [in Lakh]				
			Ist Year	IIInd Year	IIIrd Year	IVth Year	Vth Year
1	Air Pollution control – Air pollution control devices, Stacks, Fume Extraction System, Water Sprinkling	30	8	8	8	8	8

2	Water pollution control - ETP and STP	0	60	60	60	60	60
3	Solid wastes management – Dust Bins, Storage Facility of Hazardous Waste		18	18	18	18	18
5	Environmental monitoring	0	5	5	5	5	5
6	PPE to Labours	0	6	6	6	6	6
7	Insurance Policy for Employees	45	45	45	45	45	45
8	Fire Safety & Fire Equipments	0	20	20	20	20	20
	Cost During Operation Phase	75	162	162	162	162	162
	Total Proposed EMP Cost During Operation Phase	885					

5. In view of the recommendations made by State Expert Appraisal Committee (SEAC) in the said case and further consideration of the documents/details submitted by the Project Proponent; the Authority after discussions decided during 173rd Meeting held on 16.05.2024 to “GRANT ENVIRONMENT CLEARANCE” to M/s JSW Steel Coated Products Limited (as per the Order dated 05.01.2023, passed by NCLT as well as Resolution dated 23.02.2023 issued by Company Secretary and approval of name change issued by HSPCB vide letter dated 07.12.2023), UNDER CATEGORY 3(a) of EIA NOTIFICATION, 2006 within the scope & meaning of EIA Notification dated 14.09.2006.

Copy To

- Director (IA Division), MoEF& CC, GoI, Indira Paryavaran Bhavan, Zorbagh Road- New Delhi-110003.
2. Chairman, State Environment Impact Assessment Authority, Bay No. 55-58, Prayatan Bhawan, Sector-2, Panchkula, Haryana
3. Chairman, Haryana State Pollution Control Board, C-11, Sector-6, Panchkula.
4. Director, Environment & Climate Change Department, Haryana, SCO 1-3, Sector-17 D, Chandigarh-160017
5. Director General, Town & Country Planning Haryana, Plot No. 3, Sector - 18A, Madhya Marg, Chandigarh- 160018.
6. Regional Office, Ministry of Environment, Forests & Climate Change, Govt. of India, Bay's No. 24-25, Sector 31-A, Dakshin Marg, Chandigarh-160018

Annexure 1

Specific EC Conditions for (Metallurgical Industries (Ferrous And Non Ferrous))

1. Specific Conditions

S. No	EC Conditions
1.1	A Green Belt/area of 5762 sqm (10.01%) at the project site in addition to the 30% Green Area developed by HSIIDC Bawal shall be developed in a time frame of two years covering with native species within plant premises and avenue plantation (as committed by PP).
1.2	Greening and Paving shall be implemented in the plant area to arrest soil erosion and dust pollution from exposed soil surface
1.3	No ground water will be extracted
1.4	The project proponent shall maintain ETP and treated water will be reused and maintain the ZLD status
1.5	The Oil scum and oily waste from plant shall be sent to registered re-cyclers

S. No	EC Conditions
1.6	All internal road and connecting road from project site to main highway shall be maintained with suitable Indian Standards as per the traffic load
1.7	Performance test shall be conducted on all pollution control systems every year
1.8	Particulate matter emission from stacks shall be less than 150 mg/Nm ³
1.9	Hazardous waste generated i.e. Empty Barrel/Containers contaminated with Chemicals, Used Oil shall be sent to registered re-cyclers and the Oil soaked clothes/residues shall be sent to TSDF and Acid Recovery Plant shall be maintained
1.10	The progress made in CER/EMP Budget expenditure shall be submitted along with six monthly compliance report to the IRO and also upload on the company web site
1.11	The gaseous emission from various processes should conform to the load/ mass based standards as prescribed by the Ministry of Environment & forest and the Central/State Pollution Control Board from time to time. At no time the emission level should go beyond the prescribed standards
1.12	Particulate matter emission from stacks shall be as per the stipulated guidelines of SPCB/CPCB
1.13	Water meter to be installed at every inlet point of fresh water uptake and also at circulation point and regular record to be maintained
1.14	The project proponent shall install 24 x 7 continuous effluent monitoring system with respect to standards prescribed in environment (Protection) Rules 1986 and its amendments from time to time and connect it to SPCB and CPCB online servers and calibrate the system from time to time according to equipment suppliers specification through labs recognized under Environment (Protection) Act 1986 or NABL accredited laboratories
1.15	Garland drain and collection pit shall be provided for each stockpile in case of runoff in the event of heavy rains and to check the water pollution due to surface runoff
1.16	A resource efficiency group shall be created to set annual targets for resource conservation and annual reports shall be furnished to RO
1.17	All internal roads should be concreted/paved. Proper lighting and proper pathway inside the factory premises should be constructed to ensure safe vehicular movement. Provision of separate pathway for entry and exit of vehicles should be considered. Vehicles should conform to pollution under control (PUC) norms. Proper housekeeping shall be maintained within the premises. Solar lighting should be used as far as practicable complying with HAREDA norms, if applicable
1.18	Vehicles carrying a raw material shall be covered with tarpaulin to prevent spreading of dust during transportation
1.19	Regular Sweeping of Road shall be practiced with vacuum sweeping machine or water sprinkling to minimize dust
1.20	Adequate measures to be adopted for control of fugitive emissions. Regular water sprinkling should be done to control the fugitive emissions

S. No	EC Conditions
1.21	Health and safety of workers should be ensured. Workers should be provided with adequate personnel protective equipment and sanitation facilities. Occupational health surveillance of workers shall be done on a regular basis and record maintained as per factories act
1.22	Adequate measures to be adopted to ensure industrial safety. Proper fire detection & protection systems to be provided to control fire and explosion hazards
1.23	Emergency preparedness plan based on the Hazard Identification and Risk Assessment (HIRA) and Disaster Management Plan (DMP) shall be implemented
1.24	The project proponent carry out heat stress analysis for the workman who work in high temperature work zone and provide personal protection equipment as per the norms of the factory act

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

1. Statutory Compliance

S. No	EC Conditions
1.1	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.
1.2	This Environmental clearance 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. Air Quality Monitoring And Preservation

S. No	EC Conditions
2.1	The project proponent shall monitor fugitive emissions in the plant premises at least once in every six month through laboratories recognized under Environment (Protection) Act, 1986 or NABL accredited laboratories
2.2	Appropriate Air Pollution Control Measures (APCM) shall be provided for all the air pollution generating points, so as to comply prescribed stack emission standards
2.3	The project proponent shall provide leakage detection for Gaseous Fuel Storage Tanks
2.4	The project proponent shall design the ventilation system for adequate air changes as per prevailing norms for all motor houses, Oil Cellars wherever required

3. Water Quality Monitoring And Preservation

S. No	EC Conditions
3.1	The domestic wastewater will be treated through Sewage Treatment Plant in adjacent unit HRD (as committed by PP) to meet the prescribed standards
3.2	The project proponent shall maintain the ETP and treated water will be reused and maintain the ZLD status

4. Noise Monitoring And Prevention

S. No	EC Conditions
4.1	Noise quality shall be monitored as per the prescribed Noise Pollution (Regulation and Control) Rules, 2000 and report in this regard shall be submitted to Integrated Regional Office (IRO), MoEF & CC as a part of six-monthly compliance report

5. Energy Conservation Measures

S. No	EC Conditions
5.1	Energy conservation measures will be adopted such as adoption of renewable energy and provision of LED lights etc., to minimize the energy consumption
5.2	Waste Heat Recovery System shall be provided as per technical feasibility
5.3	PGreen Hydrogen Plant will be installed as committed by project proponent

6. Waste Management

S. No	EC Conditions
6.1	Waste Acid Recovery Plant shall be provided
6.2	Interleaving paper shall be recycled to maximum possible extent
6.3	Kitchen waste shall be composted

7. Green Belt

S. No	EC Conditions
7.1	The project proponent shall prepare GHG emissions inventory for the plant and shall submit the programme for reduction of the same including carbon sequestration including plantation
7.2	Project proponent shall submit a study report on De-carbonization program, which would essentially consist of company's carbon emissions, carbon budgeting/ balancing, carbon sequestration activities and carbon capture, use and storage and off setting strategies

8. Public Hearing And Human Health Issues

S. No	EC Conditions
8.1	Emergency preparedness plan based on the Hazard identification and Risk Assessment(HIRA)and Disaster Management Plan shall be implemented
8.2	The project proponent shall provide Personal Protection Equipment (PPE) as per the norms of Factory Act
8.3	Occupational health surveillance of the workers shall be done on a regular basis and record shall be maintained

9. Environment Management

S. No	EC Conditions
9.1	The project proponent shall comply with the provisions contained in this Ministry's OM vide F.No. 22-65/2017-IA.III dated 30/09/2020 as part of Corporate Environment Responsibility(CER)activity
9.2	The company shall have a well laid down environmental policy duly approved by the Board of Directors/Occupier
9.3	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 report to the head of the organization

10. Miscellaneous

S. No	EC Conditions
10.1	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.
10.2	The copies of the environmental clearance shall be submitted by the project proponents to the Heads of local bodies, Panchayats and Municipal Bodies in addition to the relevant offices of the Government who in turn has to display the same for 30 days from the date of receipt.
10.3	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.
10.4	The project proponent shall monitor the criteria pollutants level namely; PM10, SO2, NOx (ambient levels as well as stack emissions) or critical sectoral parameters, indicated for the projects and display the same at a convenient location for disclosure to the public and put on the website of the company.
10.5	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

S. No	EC Conditions
	Climate Change at environment clearance portal.
10.6	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.
10.7	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.
10.8	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).
10.9	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.
10.10	The Ministry may revoke or suspend the clearance, if implementation of any of the above conditions is not satisfactory.
10.11	The Ministry reserves the right to stipulate additional conditions if found necessary. The Company in a time bound manner shall implement these conditions.
10.12	The Regional Office of this Ministry shall monitor compliance of the stipulated conditions. The project authorities should extend full cooperation to the officer (s) of the Regional Office by furnishing the requisite data / information/monitoring reports.
10.13	Any appeal against this EC shall lie with the National Green Tribunal, if preferred, within a period of 30 days as prescribed under Section 16 of the National Green Tribunal Act, 2010.

Annexure-2

HSI IDC, Sector-3, Industrial Model Township, , District: Bawal, 123501
 Phone: +91-1284-264120 Fax: +91--
 E-mail: estate.bawal@hsiidc.org.in visit us at : http://www.hsiidcesewa.org.in CIN:U29199HR1967SGC034545

Water / Sewerage Bill

Bill Date: 06/05/2025

Due Date: 22/05/2025

Bill Amount:

Amount payable after

due Date: 100308

(Amount in rupees)

Allottee Name.: M/S ASIAN COLOUR COATED ISPAT LTD

Unique No.	Bill Number	District	Estate	Cluster	Phase	Sector	Plot No	Plot Size(sq.m)
535085	Bawal/WBS/2025/MAR/599314	Rewari	Bawal	Industrial Model Township	I	6	7-12	56700

Bill Period		Meter Reading(Meter - Working)		Unit Consumed(KI)	Rate	Water Charges(a)*
From	To	New	Old			
01/02/2025	31/03/2025	23400	18271	5129	12	61548

Sewerage Charges Water Closet(WC)/Urinal (URI) (b)				Waste Water Charges (WWC)(i)			WWC on a/c of water from Borewell(ii) (if any)	Booster Pump Penalty Charges(d)	Arrears If Any(e)	Credit Amt.(f)	Payable Total Amt. Before Due Date (g)	Surcharge (h)	Payable Total Amount After due date(i)
No.	Rate(Per Month)	Amt.	Unit	Rate	Amt.								
WC(i)	8	15	240	3590.3	10	35903					(a+b+c+d+e-f)		(g+h)
Urinal(ii)	17	5	170				0						
Total Sewerage Charges(g)			410	Total Waste Water Charges c=(i+ii)			35903	0	0	0	97861	2447	100308

Important Note: Notice in instruction are printed on reverse.

i. Please Pay the bill online at www.hsiidcesewa.org.in

ii. Kindly make timely payments to avoid disconnection.

iii. Cash payment will not be accepted.

iv. Flat rate charges shall be levied if the meter remains out of order for more than two months.

For and on behalf

Report Date: Tue May 13 11:02:35

Authorized Signatory

Haryana State Industrial & Infrastructure Corporation Ltd.

HSI IDC, Sector-3, Industrial Model Township, , District: Bawal, 123501
 Phone: +91-1284-264120 Fax: +91--
 E-mail: estate.bawal@hsiidc.org.in visit us at : http://www.hsiidcesewa.org.in CIN:U29199HR1967SGC034545

HSI IDC COPY

Water / Sewerage Bill

Bill Date: 06/05/2025

Due Date: 22/05/2025

Bill Amount: 97861

Amount payable after

due date: 100308

(Amount in rupees)

Allottee Name.: M/S ASIAN COLOUR COATED ISPAT LTD

Unique No.	Bill Number	District	Estate	Cluster	Phase	Sector	Plot No	Plot Size(sq.m)
535085	Bawal/WBS/2025/MAR/599314	Rewari	Bawal	Industrial Model Township	I	6	7-12	56700

Bill Period		Meter Reading(Meter - Working)		Unit Consumed(KI)	Rate	Water Charges(a)*
From	To	New	Old			
01/02/2025	31/03/2025	23400	18271	5129	12	61548

Sewerage Charges Water Closet(WC)/Urinal (URI) (b)				Waste Water Charges (WWC)(i)			WWC on a/c of water from Borewell (ii) (if any)	Booster Pump Penalty Charges	Arrears If Any(e)	Credit Amt.(f)	Payable Total Amount Before Due Date (g)	Surcharge (h)	Payable Total Amount After due date(i)
No.	Rate(Per Month)	Amt.	Unit	Rate	Amt.								
WC(i)	8	15	240	3590.3	10	35903					(a+b+c+d+e-f)		(g+h)
Urinal(ii)	17	5	170				0						
Total Sewerage Charges(g)			410	Total Waste Water Charges c=(i+ii)			35903	0	0	0	97861	2447	100308

Important Note: Notice in instruction are printed on reverse.

i. Please Pay the bill online at www.hsiidcesewa.org.in

ii. Kindly make timely payments to avoid disconnection.

iii. Cash payment will not be accepted.

iv. Flat rate charges shall be levied if the meter remains out of order for more than two months.

For and on behalf

Report Date: Tue May 13 11:02:35

Authorized Signatory



HARYANA STATE INDUSTRIAL AND INFRASTRUCTURE DEVELOPMENT CORPN. LTD.

IMT Bawal

WATER / SEWERAGE / WWC CHARGES BILL

Bill Date : 01-May-2025

2

WATER / SEWERAGE / WWG CHARGES BILL							
UNIQUE NO.	BILL NUMBER	PLOT NO.	SECTOR	SIZE OF PLOT	DUE DATE		
060007Z	MN35581	7-12 II	SECTOR-6 (PH-1)		22-May-2025		
NO. OF TOTAL		PERIOD		METER READING		UNIT CONSUMED	ARREARS Rs.
WC	URINALS	FROM	TO	NEW	OLD		
0	0	01-Feb-2025	31-Mar-2025	76188	73784	2404	0
CHARGES IN Rs.			AMOUNT TO PAY BY DUE DATE	SURCHARGE @ 3% IN Rs.		AMOUNT TO PAY AFTER DUE DATE	
WATER	WWC	SEWARGE/UR					
28848	16827	0	45675	1142		46817	

Important Note : Notice and instructions are printed on reverse

TIMELY PAYMENT AVOIDS DISCONNECTION

Note : 1. Draft / cheque should be drawn in favour of HSIIDC Ltd., payable Rewari/Gurgaon/Delhi.

For and on behalf of HSIIDC - Bawal

Time : 10A.M. to 1 P.M.

Remarks

Authorised Signatory



HARYANA STATE INDUSTRIAL AND INFRASTRUCTURE DEVELOPMENT CORPN. LTD.
IMT Bawal

Bill Date : 01-May-2025

3

WATER / SEWERAGE / WWC CHARGES BILL

WATER / SEWERAGE / WWC CHARGES BILL

UNIQUE NO.	BILL NUMBER	PLOT NO.	SECTOR	SIZE OF PLOT	DUE DATE
060007Y	MN35580	7-12 III	SECTOR-6 (PH-1)		22-May-2025

NO. OF TOTAL		PERIOD		METER READING		UNIT CONSUMED	ARREARS Rs.
WC	URINALS	FROM	TO	NEW	OLD		
0	0	01-Feb-2025	31-Mar-2025	26415	20499	5916	0

CHARGES IN Rs.			AMOUNT TO PAY BY DUE DATE	SURCHARGE @ 3% IN Rs.	AMOUNT TO PAY AFTER DUE DATE
WATER	WWC	SEWARGE/UR			
70992	41410	0	112402	2810	115212

Important Note : Notice and instructions are printed on reverse

TIMELY PAYMENT AVOIDS DISCONNECTION

Note : 1. Draft / cheque should be drawn in favour of HSIIDC Ltd., payable Rewari/Gurgaon/Delhi.

Time : 10A.M. to 1 P.M.

Remarks

For and on behalf of HSIIDC - Bawal

Authorised Signatory

Annexure-3

☐ Grey ☐ Blue ☐ Green ☐ Orange ☐ Pink ☒ Yellow ☐ White									
Form 10 [See rule 19 (1)] MANIFEST FOR HAZARDOUS AND OTHER WASTE.									
1.	Sender's Name and mailing address (including Phone No. and e-mail):		JSW STEEL COATED PRODUCTS LIMITED PLOT NO. 7 to 12 , IMT BAWAL ROAD SECTOR-6, REWARI (HR) Mob. 97179-97727 Email : sunil.gaur@jsw.in						
2.	Sender's Authorize No.		HWM/REW/2023/15562864						
3.	Manifest Document No.		S-1900437						
4.	Transporter's Name and mailing address (including Phone No. and e-mail):		RAKESH VILL.CHIRHARA, TEH. BAWAL, DIST. REWARI 8199030933						
5.	Type of Vehicle		(Truck/Tanker/Special Vehicle)						
6.	Transporter's Registration No.								
7.	Vehicle Registration No.		HR47C-6084						
8.	Receiver's Name and mailing address (including Phone No. and e-mail):		Haryana Oil Processor, Shiv Vihar, Kharkhoda Road Sampla, Dist. Rohtak-124501 9871380969/Haryana.oil.processors@gmail.com						
9.	Receiver's Authorize No.		HWM/ROH/2021/11044093						
10.	Waste Description		1-5.1 Used or Spent Oil						
11.	Total Quantity		11220 LTR						
12.	Physical Form		(Solid/Semi-Solid/Sludge/Oily/Tarry/Slurry/Liquid)						
13.	Special handling instruction and additional information								
14.	For JSW Steel Coated Products Limited (Formerly known as Asian Colour Coated Ispat Ltd.) Authorized Signatory Sender's Certificate		I hereby declare that the content of the consignment are fully and accurately describe above by proper shipping name and are categorized, packed, Marked, and labeled, and are in all respects in proper conditions for transport by road according to applicable national government regulation.						
Name of Stamp		Signature:	<table border="1"> <tr> <th>Month</th> <th>Day</th> <th>Year</th> </tr> <tr> <td>04</td> <td>18</td> <td>2024</td> </tr> </table>	Month	Day	Year	04	18	2024
Month	Day	Year							
04	18	2024							
15. Transporter acknowledgment of receipt of Waste									
Name of Stamp :		Signature :	<table border="1"> <tr> <th>Month</th> <th>Day</th> <th>Year</th> </tr> <tr> <td>04</td> <td>18</td> <td>2024</td> </tr> </table>	Month	Day	Year	04	18	2024
Month	Day	Year							
04	18	2024							
16. Receiver's certificate for receipt of hazardous and other waste.									
Name of Stamp:		Signature :	<table border="1"> <tr> <th>Month</th> <th>Day</th> <th>Year</th> </tr> <tr> <td>04</td> <td>18</td> <td>2024</td> </tr> </table>	Month	Day	Year	04	18	2024
Month	Day	Year							
04	18	2024							

AUTHORISED SIGNATORY

24 BA 2700004065

FORM 10

See Rule 19(1)

Manifest for Hazardous and other waste

1. Sender's Name & Mailing Address (Including Phone No. & e-mail)		2. Sender's Authorization No.		3. Manifest Document No.	
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com		2842217 REW CTO - HWN 3610353		144	
4. Transporter's Name & Mailing Address (Including Phone No. & e-mail)		5. Type of Vehicle		6. Transporter's Registration No.	
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com		Truck		06NHBP81345M1 20	
				7. Vehicle Registration No. HR55AB6858	
8. Receiver's Name & Mailing Address (Including Phone No. & e-mail)				9. Receiver's Registration No.	
SHIV OIL REFINERY V VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com				06AN8PA4093C1 ZH	
10. Waste Description				12. Physical Form	
OILY SLUDGE FROM CRM				Solid YES Tarry	
				Semi-Solid Slurry	
11. Total Quantity of Waste		M3 or MT		Sludge Liquid	
No. of Containers		Nos.		Oily	
70					
13. Special Handling Instruction & Additional Information ; Use Personal Protection Equipments while Handling					
14. SENDER'S CERTIFICATE : I hereby declares that contents of the consignment are fully and accurately described above by proper shipping name and are categorized packed, marked and labeled and are in all respect in proper condition for transport by road according to applicable national government regulation.					
Type, Name & Stamp of Unit			Month Day Year		
Signature with Designation with Rubber Stamp			06 10 24		
15. Transporter's Acknowledgement of Receipt of Material					
Type, Name & Stamp of Transporter			Month Day Year		
Signature with Designation with Rubber Stamp			06 10 24		
16. Receiver's Certification for Receipt of Hazardous Waste					
For Shiv Oil Refinery			Month Day Year		
Signature with Designation with Rubber Stamp			06 10 24		

1. White Form forwarded by the sender to SPCB
2. Yellow Form retained by sender after taking sign from transporter
3. Pink Form retained by receiver
4. Orange Form handed over to transporter after accepting waste

5. Green Form sent by receiver to SPCB
6. Blue Form sent by the receiver to the sender
7. Grey Form sent by the receiver to the SPCB of the sender in case the sender is in another State.

FORM 10

See Rule 19(1)

Manifest for Hazardous and other waste

1. Sender's Name & Mailing Address (Including Phone No. & e-mail)		2. Sender's Authorization No.		3. Manifest Document No.															
JSW Steel Coated Products Limited Plot No. 7 to 12 Sector-6, IMT Bhiwadi, Distt. Neemli-123501-Haryana 01725-081130M3900L12Y		2842217 REN CTO-HWM 3610353		145															
4. Transporter's Name & Mailing Address (Including Phone No. & e-mail)		5. Type of Vehicle		6. Transporter's Registration No.															
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com		Truck																	
				7. Vehicle Registration No. RJ18 GA 4885															
8. Receiver's Name & Mailing Address (Including Phone No. & e-mail)				9. Receiver's Registration No.															
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com				06ANGPA093C 1214															
10. Waste Description				12. Physical Form															
OILY SLUDGE FROM CRM				Solid	YES	Tarry													
				Semi-Solid		Slurry													
11. Total Quantity of Waste		M3 or MT		Sludge		Liquid													
No. of Containers		Nos.		Oily															
13. Special Handling Instruction & Additional Information ;		Use Personnel Protection Equipments while Handling																	
14. SENDER'S CERTIFICATE : I hereby declares that contents of the consignment are fully and accurately described above by proper shipping name and are categorized packed, marked and labeled and are in all respect in proper condition for transport by road according to applicable national government regulation.																			
Type, Name & Stamp of Unit For JSW Steel Coated Products Limited Primarily known as Asian Colour Coated Products Ltd.				<table border="1"> <tr> <td colspan="2">Month</td> <td colspan="2">Day</td> <td colspan="2">Year</td> </tr> <tr> <td>0</td> <td>6</td> <td>2</td> <td>1</td> <td>2</td> <td>4</td> </tr> </table>				Month		Day		Year		0	6	2	1	2	4
Month		Day		Year															
0	6	2	1	2	4														
Signature with Designation with Rubber Stamp																			
15. Transporter's Acknowledgement of Receipt of Material																			
Type, Name & Stamp of Transporter				<table border="1"> <tr> <td colspan="2">Month</td> <td colspan="2">Day</td> <td colspan="2">Year</td> </tr> <tr> <td>0</td> <td>6</td> <td>2</td> <td>1</td> <td>2</td> <td>4</td> </tr> </table>				Month		Day		Year		0	6	2	1	2	4
Month		Day		Year															
0	6	2	1	2	4														
Signature with Designation with Rubber Stamp																			
16. Receiver's Certification for Receipt of Hazardous Waste																			
For Shiv Oil Refinery Signature with Designation with Rubber Stamp				<table border="1"> <tr> <td colspan="2">Month</td> <td colspan="2">Day</td> <td colspan="2">Year</td> </tr> <tr> <td>0</td> <td>6</td> <td>2</td> <td>1</td> <td>2</td> <td>4</td> </tr> </table>				Month		Day		Year		0	6	2	1	2	4
Month		Day		Year															
0	6	2	1	2	4														

1. White Form forwarded by the sender to SPCB
2. Yellow Form retained by sender after taking sign from transporter
3. Pink Form retained by receiver
4. Orange Form handed over to transporter after accepting waste

5. Green Form sent by receiver to SPCB
6. Blue Form sent by the receiver to the sender
7. Grey Form sent by the receiver to the SPCB of the sender in case the sender is in another State.

24BA2700008284

FORM 10

See Rule 19(1)

Manifest for Hazardous and other waste

1. Sender's Name & Mailing Address (Including Phone No. & e-mail)		2. Sender's Authorization No.		3. Manifest Document No.													
JSW Steel Coated Products Limited 110, T-12 Sector-8, MT Gurgaon, Haryana-125001 UCCM3988L1ZY		2842217 REW CTO - HWM 3610353		146													
4. Transporter's Name & Mailing Address (Including Phone No. & e-mail)		5. Type of Vehicle		6. Transporter's Registration No.													
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com		Truck															
				7. Vehicle Registration No.													
				HR 47C 2184													
8. Receiver's Name & Mailing Address (Including Phone No. & e-mail)				9. Receiver's Registration No.													
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com				06AN GPA093C12A													
10. Waste Description				12. Physical Form													
OILY SLUDGE FROM CRM				Solid YES Tarry													
				Semi-Solid Slurry													
11. Total Quantity of Waste				Sludge Liquid													
No. of Containers 70				Oily													
13. Special Handling Instruction & Additional Information ; Use Personnel Protection Equipments while Handling																	
14. SENDER'S CERTIFICATE : I hereby declares that contents of the consignment are fully and accurately described above by proper shipping name and are categorized packed, marked and labeled and are in all respect in proper condition for transport by road according to applicable national Government regulation.																	
Type, Name & Stamp of Unit			<table border="1"> <tr> <td colspan="2">Month</td> <td colspan="2">Day</td> <td colspan="2">Year</td> </tr> <tr> <td>0</td> <td>9</td> <td>1</td> <td>3</td> <td>2</td> <td>4</td> </tr> </table>			Month		Day		Year		0	9	1	3	2	4
Month		Day		Year													
0	9	1	3	2	4												
Signature with Designation with Rubber Stamp																	
15. Transporter's Acknowledgement of Receipt of Material																	
Type, Name & Stamp of Transporter			<table border="1"> <tr> <td colspan="2">Month</td> <td colspan="2">Day</td> <td colspan="2">Year</td> </tr> <tr> <td>0</td> <td>9</td> <td>1</td> <td>3</td> <td>2</td> <td>4</td> </tr> </table>			Month		Day		Year		0	9	1	3	2	4
Month		Day		Year													
0	9	1	3	2	4												
Signature with Designation with Rubber Stamp																	
16. Receiver's Certification for Receipt of Hazardous Waste																	
For Shiv Oil Refinery			<table border="1"> <tr> <td colspan="2">Month</td> <td colspan="2">Day</td> <td colspan="2">Year</td> </tr> <tr> <td>0</td> <td>9</td> <td>1</td> <td>3</td> <td>2</td> <td>4</td> </tr> </table>			Month		Day		Year		0	9	1	3	2	4
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Signature with Designation with Rubber Stamp																	

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5. Green Form sent by receiver to SPCB
6. Blue Form sent by the receiver to the sender
7. Grey Form sent by the receiver to the SPCB of the sender in case the sender is in another State.

FORM 10

See Rule 19(1)

Manifest for Hazardous and other waste

1. Sender's Name & Mailing Address (Including Phone No. & e-mail)		2. Sender's Authorization No.		3. Manifest Document No.															
JSW Steel Coated Products Limited Plot. 7 to 12 Sector 6, IMT Gurgaon, Haryana 122015 Phone: 0124-2311111 Fax: 0124-2311112 E-mail: jswsteel@jswsteel.com		2842217 REW CTO HWM 361 0353		147															
4. Transporter's Name & Mailing Address (Including Phone No. & e-mail)		5. Type of Vehicle		6. Transporter's Registration No.															
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com		Truck																	
				7. Vehicle Registration No. HR 476 6084															
8. Receiver's Name & Mailing Address (Including Phone No. & e-mail)				9. Receiver's Registration No.															
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com				06ANGPA 4093C12 H															
10. Waste Description				12. Physical Form															
OILY SLUDGE FROM CRM				Solid	YES	Tarry													
				Semi-Solid		Slurry													
11. Total Quantity of Waste				M3 or MT	Sludge	Liquid													
No. of Containers				Nos.	Oily														
13. Special Handling Instruction & Additional Information ;				Use Personnal Protection Equipments while Handling															
14. SENDER'S CERTIFICATE : I hereby declares that contents of the consignment are fully and accurately described above by proper shipping name and are categorized packed, marked and labeled and are in all respect in proper condition for transport by road according to applicable national government regulation.																			
Type, Name & Stamp of Sender				<table border="1"> <tr> <td colspan="2">Month</td> <td colspan="2">Day</td> <td colspan="2">Year</td> </tr> <tr> <td>0</td> <td>9</td> <td>2</td> <td>4</td> <td>2</td> <td>4</td> </tr> </table>				Month		Day		Year		0	9	2	4	2	4
Month		Day		Year															
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FORM 10

See Rule 19(1)

Manifest for Hazardous and other waste

1. Sender's Name & Mailing Address (Including Phone No. & e-mail)		2. Sender's Authorization No.		3. Manifest Document No.													
JSW Steel Coated Products Limited Plot No. 7 to 12 Sector-6, IND Gurgaon, Distt. Rewari-122001-Haryana INDIA		2842217 REW ZTO HWM 3610353		150													
4. Transporter's Name & Mailing Address (Including Phone No. & e-mail)		5. Type of Vehicle		6. Transporter's Registration No.													
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com		Truck															
				7. Vehicle Registration No.													
				HR 47 C 2184													
8. Receiver's Name & Mailing Address (Including Phone No. & e-mail)				9. Receiver's Registration No.													
SHIV OIL REFINERY S / VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com				06 AN GPA 4093 C 12 H													
10. Waste Description				12. Physical Form													
OILY SLUDGE FROM CRM				Solid	YES	Tarry											
				Semi-Solid		Slurry											
				Sludge		Liquid											
				Oily													
11. Total Quantity of Waste		M3 or MT															
No. of Containers		Nos.															
41																	
13. Special Handling Instruction & Additional Information ; Use Personal Protection Equipments while Handling																	
14. SENDER'S CERTIFICATE : I hereby declares that contents of the consignment are fully and accurately described above by proper shipping name and are categorized packed, marked and labeled and are in all respect in proper condition for transport by road according to applicable national government regulation.																	
Type, Name & Stamp of Proprietor				<table border="1"> <tr> <td colspan="2">Month</td> <td colspan="2">Day</td> <td colspan="2">Year</td> </tr> <tr> <td>1</td> <td>1</td> <td>2</td> <td>2</td> <td>2</td> <td>4</td> </tr> </table>		Month		Day		Year		1	1	2	2	2	4
Month		Day		Year													
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Month		Day		Year													
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Signature with Designation with Rubber Stamp																	
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FORM 10

See Rule 19(1)

Manifest for Hazardous and other waste

1. Sender's Name & Mailing Address (Including Phone No. & e-mail)		2. Sender's Authorization No.		3. Manifest Document No.							
JSW Steel Coated Products Limited Plot No. 7 to 12 Sector 8, IMT Gurgaon, Haryana-122001 Phone: 0122-6639881, 6639882 Fax: 0122-6639883, 6639884 E-mail: jswsteel@jswsteel.com		2842217 REW CTO HWM 3610353		151							
4. Transporter's Name & Mailing Address (Including Phone No. & e-mail)		5. Type of Vehicle		6. Transporter's Registration No.							
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com		Truck									
				7. Vehicle Registration No. HR 47 C 2184							
8. Receiver's Name & Mailing Address (Including Phone No. & e-mail)				9. Receiver's Registration No.							
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com				06AM GPA 40							
10. Waste Description				12. Physical Form							
OILY SLUDGE FROM CRM				Solid YES Tarry							
				Semi-Solid Slurry							
11. Total Quantity of Waste		M3 or MT		Sludge Liquid							
No. of Containers		Nos.		Oily							
34											
13. Special Handling Instruction & Additional Information ; Use Personal Protection Equipments while Handling											
14. SENDER'S CERTIFICATE : I hereby declares that contents of the consignment are fully and accurately described above by proper shipping name and are categorized packed, marked and labeled and are in all respect in proper condition for transport by road according to applicable national government regulation.											
Type, Name & Stamp of Unit				<table border="1"> <tr> <td>Month</td> <td>Day</td> <td>Year</td> </tr> <tr> <td>01</td> <td>11</td> <td>25</td> </tr> </table>		Month	Day	Year	01	11	25
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Signature with Designation with Rubber Stamp											
15. Transporter's Acknowledgement of Receipt of Material											
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Signature with Designation with Rubber Stamp											
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Signature with Designation with Rubber Stamp				<table border="1"> <tr> <td>Month</td> <td>Day</td> <td>Year</td> </tr> <tr> <td>01</td> <td>11</td> <td>25</td> </tr> </table>		Month	Day	Year	01	11	25
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FORM 10

See Rule 19(1)

Manifest for Hazardous and other waste

1. Sender's Name & Mailing Address (Including Phone No. & e-mail)		2. Sender's Authorization No.		3. Manifest Document No.			
JSW Steel Coated Products Limited Plot No. 7 to 12 Sector-6, IMT Gurgaon, Haryana-123501		284 2217 REW CTO - HWM 3610553		148			
4. Transporter's Name & Mailing Address (Including Phone No. & e-mail)		5. Type of Vehicle		6. Transporter's Registration No.			
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com		Truck					
				7. Vehicle Registration No. HR 47 C 2184			
8. Receiver's Name & Mailing Address (Including Phone No. & e-mail)				9. Receiver's Registration No.			
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com				06 ANGPA 4093C 12A			
10. Waste Description				12. Physical Form			
OILY SLUDGE FROM CRM				Solid	YES	Tarry	
				Semi-Solid		Slurry	
				Sludge		Liquid	
				Oily			
11. Total Quantity of Waste		M3 or MT					
No. of Containers		Nos.					
33							
13. Special Handling Instruction & Additional Information ; Use Personal Protection Equipments while Handling							
14. SENDER'S CERTIFICATE : I hereby declares that contents of the consignment are fully and accurately described above by proper shipping name and are categorized packed, marked and labeled and are in all respect in proper condition for transport by road according to applicable national government regulation.							
Type, Name & Stamp of Unit : For JSW Steel Coated Products Limited							
Signature with Designation with Rubber Stamp : Proprietor							
15. Transporter's Acknowledgement of Receipt of Material							
Type, Name & Stamp of Transporter							
Signature with Designation with Rubber Stamp							
16. Receiver's Certification for Receipt of Hazardous Waste							
For Shiv Oil Refinery							
Signature with Designation with Rubber Stamp : Proprietor							

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JSW Steel Coated Products Limited Plot No. 7 to 12 Sector-8, IMT Gurgaon, Distt. Gurgaon-122001 Haryana Phone: 0122-25000000		2842217 REW CTO - HWM 3610353		149							
4. Transporter's Name & Mailing Address (Including Phone No. & e-mail)		5. Type of Vehicle		6. Transporter's Registration No.							
SHIV OIL REFINERY SHIV VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com		Truck									
				7. Vehicle Registration No. HR47C2184							
8. Receiver's Name & Mailing Address (Including Phone No. & e-mail)				9. Receiver's Registration No.							
SHIV OIL REFINERY S. VIHAR, KHARKHODA ROAD, KHERI SAMPLA, DISTT. ROHTAK (HARYANA) E-mail : shivoilrefinery@gmail.com				06ANGPA093C12H							
10. Waste Description				12. Physical Form							
OILY SLUDGE FROM CRM				Solid	YES	Tarry					
				Semi-Solid		Slurry					
				Sludge		Liquid					
				Oily							
11. Total Quantity of Waste		M3 or MT									
No. of Containers		Nos.									
35											
13. Special Handling Instruction & Additional Information ; Use Personal Protection Equipments while Handling											
14. SENDER'S CERTIFICATE : I hereby declares that contents of the consignment are fully and accurately described above by proper shipping name and are categorized packed, marked and labeled and are in all respect in proper condition for transport by road according to applicable national government regulation.											
Type, Name & Stamp of Unit				<table border="1"> <tr> <td>Month</td> <td>Day</td> <td>Year</td> </tr> <tr> <td>03</td> <td>05</td> <td>25</td> </tr> </table>		Month	Day	Year	03	05	25
Month	Day	Year									
03	05	25									
Signature with Designation with Rubber Stamp and Signatory											
15. Transporter's Acknowledgement of Receipt of Material											
Type, Name & Stamp of Transporter				<table border="1"> <tr> <td>Month</td> <td>Day</td> <td>Year</td> </tr> <tr> <td>03</td> <td>05</td> <td>25</td> </tr> </table>		Month	Day	Year	03	05	25
Month	Day	Year									
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For Shiv Oil Refinery  Signature with Designation with Rubber Stamp Proprietor				<table border="1"> <tr> <td>Month</td> <td>Day</td> <td>Year</td> </tr> <tr> <td>03</td> <td>05</td> <td>25</td> </tr> </table>		Month	Day	Year	03	05	25
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SWASTIK AQUA SOLUTIONS

(Pollution Consultancy, Equipment Manufacturer & Supplier)

Manufacturing Unit: Kharati Road Industrial Area Fatehabaad (Hry.)-125050

Mob. : 9200020029, 9467094605 email:- Swastikaqua2020@gmail.com

Ref. No. SAS/2025/0076

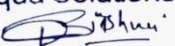
Date:- 14/06/25

TO WHOM IT MAY CONCERN

This is to certify that we visited JSWCPL Bawal, Rewari on dated 13-06-2025 and during our inspection we found that ETP is working efficiently and adhering to all the compliances as per the HSPCB (Haryana State Pollution Control Board) standards.

Regard

M/s. SWASTIK AQUA SOLUTIONS

Swastik Aqua Solutions

Prop.

Auth.Sign(14-06-25)

SWASTIK AQUA SOLUTIONS

(Pollution Consultancy, Equipment Manufacturer & Supplier)

Manufacturing Unit: Kharati Road Industrial Area Fatehabaad (Hry.)-125050

Mob. : 9200020029, 9467094605 email:- Swastikaqua2020@gmail.com

Ref. No. SAS/2025/0075

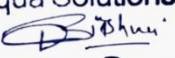
Date:- 14/06/25

TO WHOM IT MAY CONCERN

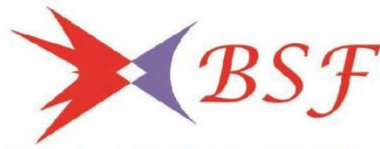
This is to certify that we visited JSWCPL Bawal, Rewari on dated 13-06-2025 and during our inspection we found that STP is working efficiently and adhering to all the compliances as per the HSPCB (Haryana State Pollution Control Board) standards.

Regard

M/s. SWASTIK AQUA SOLUTIONS

Swastik Aqua Solutions

Prop.

Auth.Sign(14-06-25)



BS PROJECTS PVT. LTD.

Office Add.:

12, Tanishka, Near Growel's 101 Mall,
Akurli Road, Kandivali (East),
Mumbai - 400 101 / India.

Contact : 022 2089 0393

Email : info@bsprojectsindia.com
bsf97@rediffmail.com

Website : www.bsffrpindustries.com

Factory Add.:

Survey no 1238 , Near Umbergaon GIDC,
Road no. 17 Kakadia Mora, Solsumbha,
Taluka & Station Umbergaon,
District Valsad, Gujarat- 396165 / India.

Email : info@bsprojectsindia.com
bsf97@rediffmail.com

Website : www.bsprojectsindia.com

Mfg. Industrial Plastics & Frp Equipments

Date : 18/6/2025

TO WHOM IT MAY CONCERN

This is to certify that we visited JSWCPL Bawal on dated 17-06-2025 and during our Inspection we found that Scrubber unit of Pickling line is working efficiently and adhering to all the compliances as per the state pollution standards.

For BS PROJECTS PVT. LIMITED



Signature



UNIVERSAL ANALYTICAL LAB PRIVATE LIMITED

AN ISO 9001 CERTIFIED & GOVERNMENT APPROVED LABORATORY

Works : Plot No. -77-77A, Khevat No. 222, Opposite HUDA Sector- 4A, Nagarpalika, Dharuhera-123106, Distt. Rewari (Haryana)

Regd. Office : MM-14, Bestech City, Sector-7, Dharuhera, Rewari, Bhatsana, Haryana, India, 123106

E-mail : universalanalyticallab@gmail.com, info@universallab.in, Web : www.universallab.in

CIN : U71200HR2023PTC117363, Mob.: +91 9992929181, +91 9729948882, +91 8569966516



Report No: UAL/DH/-155/06/25

Date: 16/06/2025

Issued to:
JSW Steel Coated Products Limited
Plot No.7-12, Sector – 6, HSIIDC Growth Centre,
Bawal. Distt-Rewari, (HR) 123501

Party's Ref No: Verbal
Dated: 09/06/2025
Lab Job Order No: 202/06/2025
Period of Testing: 13/06/2025 to 16/06/2025

TEST REPORT

A. SAMPLE PARTICULARS:

1. Name of the Unit	:	JSW Steel Coated Products Limited
2. Name of Plant/Section	:	Boiler Section
3. Capacity of Boiler	:	5 Ton
4. Type of the Sample	:	Boiler Stack Emission
5. Date & Time of Sampling	:	13/06/2025 10:15 AM to 10:51 AM
6. Type of Fuel Used	:	PNG Natural Gas
7. Stack height(From the Ground level)	:	43 m
8. Stack diameter	:	900 mm
9. Point of Sample Collection	:	From Port Hole of Stack
10. Purpose of Analysis	:	Monitoring
11. Sample Collected/ Supplied by	:	Our Lab Representative
12. Sampling Procedure	:	As Per IS 11255 (P-3)
13. Sampling Plan	:	5.7 F-01 (C)
14. Weather Condition	:	Clear Sky

B. OBSERVATIONS:

1. Stack Temperature, °C	:	139
2. Ambient Temperature, °C	:	42
3. Flue gas velocity, m/sec	:	8.32
4. Sampling flow rate, lt./min.	:	27
5. Period of sampling, minutes	:	37
6. Volumetric flow rate, Nm ³ /Hr.	:	13715.2

C. TEST RESULTS:

S. No.	Parameters	Results	Standard Limits	Test Method
1.	PM(Particulate Matter), mg/Nm ³	15.9	150	IS 11255(P-1)
2.	Sulphur Dioxide(SO ₂), mg/Nm ³	<3	-	IS 11255(P-2)
3.	Oxide of Nitrogen (NO _x), mg/Nm ³	8.5	-	IS 11255(P-7)
4.	Carbon Dioxide(CO ₂), %	7.4	-	IS-13270

*Results corrected to 12%CO₂

Remark:-H=14Q³ where as Q is the emission rate of SO₂ in kg/hr & H is the height of stack in meter

Mgr. / Sr. Analyst
Akshay



Authorized Signatory
Ajeet Singh
Technical Manager

Note : 1. This report is not to be reproduced wholly or in part and cannot be used as an evidence in the court of law.
2. This report should not be used in any advertising media without our special permission in writing.
3. Sample will be destroyed after retention time unless otherwise specified.
4. The results are related to the test items only.



Report No: UAL/DH/-156/06/25

Date: 16/06/2025

Issued to: JSW Steel Coated Products Limited Plot No.7-12, Sector – 6, HSIIDC Growth Centre, Bawal. Distt-Rewari, (HR) 123501	Party's Ref No: Verbal Dated: 09/06/2025 Lab Job Order No: 203/06/2025 Period of Testing: 13/06/2025 to 16/06/2025
---	---

TEST REPORT

A. SAMPLE PARTICULARS:

1. Name of the Unit	:	JSW Steel Coated Products Limited
2. Name of Plant/Section	:	Boiler Section
3. Capacity of Boiler	:	6 Ton (New Boiler)
4. Type of the Sample	:	Boiler Stack Emission
5. Date & Time of Sampling	:	13/06/2025 11:01 AM to 11:38 AM
6. Type of Fuel Used	:	CNG
7. Stack height(From the Ground level)	:	61.3 m
8. Stack diameter	:	1400 mm
9. Point of Sample Collection	:	From Port Hole of Stack
10. Purpose of Analysis	:	Monitoring
11. Sample Collected/ Supplied by	:	Our Lab Representative
12. Sampling Procedure	:	As Per IS 11255 (P-3)
13. Sampling Plan	:	5.7 F-01 (C)
14. Weather Condition	:	Clear Sky

B. OBSERVATIONS:

1. Stack Temperature, °C	:	140
2. Ambient Temperature, °C	:	42
3. Flue gas velocity, m/sec	:	8.00
4. Sampling flow rate, lt./min.	:	26
5. Period of sampling, minutes	:	38
6. Volumetric flow rate, Nm ³ /Hr.	:	31833.7

C. TEST RESULTS:

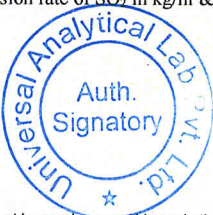
S. No.	Parameters	Results	Standard Limits	Test Method
1.	PM(Particulate Matter), mg/Nm ³	11.5	150	IS 11255(P-1)
2.	Sulphur Dioxide(SO ₂), mg/Nm ³	<3	-	IS 11255(P-2)
3.	Oxide of Nitrogen (NO _x), mg/Nm ³	7.1	-	IS 11255(P-7)
4.	Carbon Dioxide(CO ₂), %	7.2	-	IS-13270

*Pm Value corrected to 12%CO₂

Remark:-H=14Q² where as Q is the emission rate of SO₂ in kg/hr & H is the height of stack in meter



Mgr. / Sr. Analyst
Akshay





Authorized Signatory
Ajeet Singh
Technical Manager

Note : 1. This report is not to be reproduced wholly or in part and cannot be used as an evidence in the court of law.
 2. This report should not be used in any advertising media without our special permission in writing.
 3. Sample will be destroyed after retention time unless otherwise specified.
 4. The results are related to the test items only.



Report No: UAL/DH/-157/06/25

Date: 16/06/2025

Issued to:
JSW Steel Coated Products Limited
Plot No.7-12, Sector – 6, HSIIDC Growth
Centre, Bawal. Distt-Rewari, (HR) 123501

Party's Ref No: Verbal
Dated: 09/06/2025
Lab Job Order No: 204/06/25
Period of Testing: 13/06/2025 to 16/06/2025

TEST REPORT

A. SAMPLE PARTICULARS:

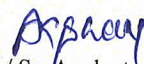
- | | | |
|----------------------------------|---|-----------------------------------|
| 1. Name of the Unit | : | JSW Steel Coated Products Limited |
| 2. Name of Plant/Section | : | Process Stack |
| 3. Type of the Sample | : | Process Emission (HCL Pickling) |
| 4. Date & Time of Sampling | : | 13/06/2025 11:49 AM to 12:24 PM |
| 5. Stack height | : | 23 m |
| 6. Stack diameter | : | 620 mm |
| 7. Point of Sample Collection | : | From Port Hole of Stack |
| 8. Purpose of Analysis | : | Monitoring |
| 9. Sample Collected/ Supplied by | : | Our Lab Representative |
| 10. Sampling procedure | : | As per IS 11255 (P – 3) |
| 11. Sampling Plan | : | 5.7 F-01 (C) |
| 12. Weather Condition | : | Clear Sky |

B. OBSERVATIONS:

- | | | |
|----------------------------------|---|--------|
| 1. Stack Temperature, °C | : | 42 |
| 2. Ambient Temperature, °C | : | 41 |
| 3. Flue gas velocity, m/sec | : | 6.69 |
| 4. Sampling flow rate, lt./min. | : | 28 |
| 5. Period of sampling, minutes | : | 36 |
| 6. Volumetric flow rate, Nm³/Hr. | : | 6845.3 |

C. TEST RESULTS:

S. No.	Parameters	Results	Standard Limits	Test Method
1.	Acid Fume (as HCL),mg/Nm³	2.0	35	UAL/SP/35


Mgr. / Sr. Analyst
Akshay




Authorized Signatory
Ajeet Singh
Technical Manager

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2. This report should not be used in any advertising media without our special permission in writing.
3. Sample will be destroyed after retention time unless otherwise specified.
4. The results are related to the test items only.

EMP Cost proposed during Construction Phase of Expansion Unit

S.No.	Particulars	Capital Cost (Lakhs)
1)	Water pollution control - ETP and Rainwater Harvesting	40
Cost During Construction Phase		40
Total Proposed EMP Cost During Construction Phase		40

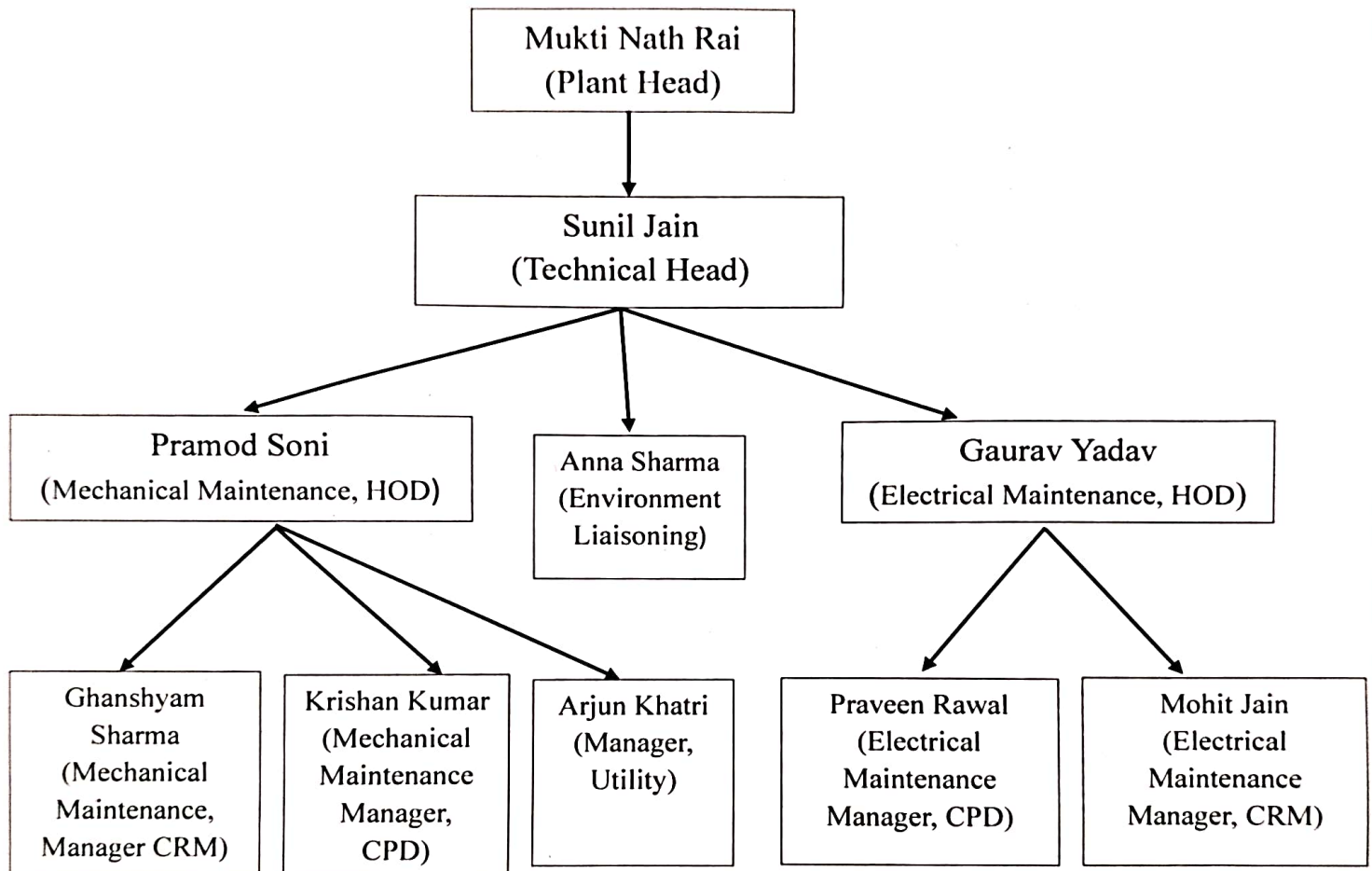
EMP Cost proposed during Operation Phase of Expansion Unit

S. No.	Particulates	Capital Cost	Recurring Cost [in Lakh]					
		[in Lakh]						
			Ist Year	Status 1 st Yr	II nd Year	III rd Year	IV th Year	V th Year
1	Air Pollution control – Air pollution control devices, Stacks, Fume Extraction System, Water Sprinkling	30	8	Done	8	8	8	8
2	Water pollution control - ETP and STP	0	60	Done	60	60	60	60
3	Solid wastes management – Dust Bins, Storage Facility of Hazardous Waste	0	18	Done	18	18	18	18
5	Environmental monitoring	0	5	Half Yr	5	5	5	5
6	PPE to Labours	0	6	Done	6	6	6	6
7	Insurance Policy for Employees	45	45	Done	45	45	45	45
8	Fire Safety & Fire Equipments	0	20	Done	20	20	20	20
Cost During Operation Phase		75	162	Cost ?	162	162	162	162
Total Proposed EMP Cost During Operation Phase		885						



JSW Steel Coated Products Limited, Bawal

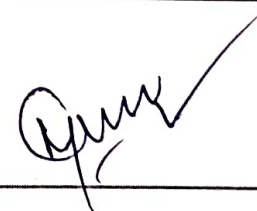
RESOURCE EFFICIENCY GROUP



Annual Target of Resources

To enhance the efficient use of energy, water, materials, and waste within the organization while reducing environmental impact and operational costs. The Company has set the annual targets to reduce the impact on Environment and for smooth operations within the plant.

Sl No.	Parameters	UOA	Annual target FY 24-25	Annual target FY 25-26
1	Energy Consumption	GCal/t	0.365	0.359
2	Water Consumption	l/t	0.220	0.23
3	GHG Emission	tCO ₂ /t	0.124	0.136
4	Air Emission	Mg/Nm ³	<150	<150
5	Waste Generation	Kg/t	25	25



Mukti Nath Rai
(Plant Head, Bawal)







TC- 15934

Annexure-10

OCEAO-ENVIRO RESEARCH & ANALYTICAL LABORATORIES (INDIA) PVT. LTD

NABL Approved Laboratory ISO/IEC 17025:2017
AN ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory
Plot No. 218, Second Floor, Sector-11, Vasundhara, Ghaziabad U.P. 201012
Email: lab@oceaoenviro.com | Website: www.oceaoenviro.com | Ph: 0120-4338047

**TEST REPORT**

TEST REPORT NO.:		OEL/AA/0625/04		DATE OF REPORT:		20.06.2025	
AMBIENT AIR QUALITY MONITORING AND ANALYSIS REPORT							
Name And Address of Customer		M/S JSW STEEL COATED PRODUCT LTD. (COLD ROLLING DIVISION), BAWAL WORKS, PLOT NO.7 TO 12, IMT BAWAL ROAD SECTOR-6, BAWAL, DISTRICT- REWARI, HARYANA.					
Date of Sampling		13.06.2025					
Analysis Start Date		16.06.2025		Analysis End Date		19.06.2025	
Sampling Duration		24 Hourly					
Sample ID No		OEL/AA/0625/04					
Sampling Done By		Sampling Executive					
Sampling Location (Geo - coordinates)		Lat- 28.09832°			Long- 76.583767°		
Sampling Machine Placed At Height		1.5 Meter from ground level					
Sampling Method		OEL/STP/AIR-01					
Sample Quantity		Filter paper of PM ₁₀ & PM _{2.5} -03 & Absorbing solution - for SO ₂ -90 ml & NO ₂ -90 ml, for NH ₃ -30 ml					
Weather Condition		CLEAR		Ambient Temperature		44.6 °C	
Equipment Used		Respirable Dust Sampler (PM ₁₀) + Fine Particulate Matter (PM _{2.5})					
S. No.	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)		Test Method	
1	Particulate Matter (PM ₁₀)	µg/m ³	164.2	For 24 Hrs.=100		IS 5182 (Part-23)	
2	Particulate Matter (PM _{2.5})	µg/m ³	79.4	For 24 Hrs.=60		IS 5182 (Part-24)	
3	Sulphur Dioxide (SO ₂)	µg/m ³	3.8	For 24 Hrs.=80		IS: 5182 (Part-2)	
4	Nitrogen Dioxide (NO ₂)	µg/m ³	9.06	For 24 Hrs.=80		IS: 5182 (Part-6)	
5	Ammonia (NH ₃)	µg/m ³	29.6	For 24 Hrs.=400		IS 5182 (Part-25)	

Remark: - BDL-Below Detection Limit, DL-Detection Limit.

*****End of Test Report*****

For OCEAO-ENVIRO RESEARCH & ANALYTICAL LABORATORIES (INDIA) PVT. LTD.

CHECKED BY
(Vandana Gupta)

AUTHORIZED SIGNATORY
(Dr. Priya Chandhary)

Note:

1. The results indicated only refer to the tested samples and listed applicable parameters.
2. No Complaint will be entertained if received after 15 days of issue of test Report.
3. Our liability is limited to invoice value only.
4. The same sample shall be destroyed after 15 days. Issue of test report
5. The Test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.

Annexure-11

JSW STEEL COATED PRODUCTS LTD (ANNUAL HEALTH CHECKUP FOR CONTRACTOR EMPLOYEE) - 2025

SR.NO.	NAME	AGE	EMP. CODE	HT.	WT.	EYE	BP	BLOOD GROUP	RBS	CBC	ESR	URINE R/M	X-RAY	PFT	AUDIOMETRY	REMARKS
1	MANOJ KUMAR	31Y/M	CSAB000355	173CM	83KG	6/9, 6/9	130/80	"B" POSITIVE	141	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
2	RAHUL	24Y/M	CSAB001262	155CM	58KG	6/6, 6/9	130/70	"O" POSITIVE	88	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
3	BABLU	25Y/M	BM523	167CM	44KG	6/9, 6/9	120/70	"AB" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
4	BIKKU KUMAR	24Y/M	CSAB001166	164CM	55KG	6/6, 6/9	130/80	"A" POSITIVE	101	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
5	AKASH	27Y/M	CSAB000119	160CM	79KG	6/6, 6/6	120/70	"A" POSITIVE	85	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
6	INDRIJEE	48Y/M	CSAB000001	166CM	58KG	6/6, 6/6	160/90	"O" POSITIVE	99	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED CARDIOLOGY CONSULTANCY, HIGH BP
7	SURESH KUMAR	30Y/M	CSAB001220	176CM	68KG	6/6, 6/6	120/80	"B" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
8	VIPIN KUMAR	19Y/M	CSAB001033	167CM	47KG	6/6, 6/6	120/70	"A" POSITIVE	132	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
9	YOGESH KUMAR	35Y/M	JBT52027	175CM	89KG	6/6, 6/6	120/70	"O" POSITIVE	99	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
10	SHYAMPAL	28Y/M	CSAB001255	170CM	63KG	6/6, 6/6	120/70	"AB" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
11	ARUN KUMAR SINGH	53Y/M	OM 315	159CM	57KG	6/9, 6/12	140/80	"A" POSITIVE	108	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY, MONITORING BP
12	AMIT YADAV	24Y/M	GLOBAL000393	171CM	76KG	6/6, 6/6	140/70	"B" POSITIVE	104	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
13	RAM NARAYAN KUMAR	29Y/M	CSAB000402	162CM	57KG	6/6, 6/9	130/80	"B" POSITIVE	110	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
14	SANJEEV	33Y/M	CSAB001122	173CM	75KG	6/6, 6/6	140/80	"B" POSITIVE	120	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
15	KHYALIRAM	27Y/M	CSAB001081	155CM	59KG	6/6, 6/6	120/70	"O" POSITIVE	85	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
16	TRILOK SINGH	32Y/M	BMR0035	167CM	90KG	6/6, 6/9	150/80	"B" POSITIVE	102	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED CARDIOLOGY / EYE CONSULTANCY, HIGH BP
17	ARJUN SINGH	30Y/M	CSAB001301	153CM	60KG	5/24, 6/24	150/90	"B" NEGATIVE	101	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED CARDIOLOGY / EYE CONSULTANCY, HIGH BP
18	MANISH	32Y/M	BMR0035	159CM	60KG	6/9, 6/9	120/80	"B" NEGATIVE	102	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
19	DUNGOR	46Y/M	CSAB000259	165CM	48KG	6/9, 6/12	140/90	"B" NEGATIVE	101	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY, MONITORING BP
20	SHAILESH KUMAR	23Y/M	CSAB000135	162CM	54KG	6/6, 6/6	130/80	"A" POSITIVE	103	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
21	SATPAL	48Y/M	OM229	165CM	63KG	6/9, 6/12	120/70	"O" POSITIVE	100	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
22	VIKAS	31Y/M	CSAB000355	172CM	64KG	6/6, 6/6	130/70	"AB" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
23	ANIL ROI	38Y/M	JBT52008	171CM	78KG	6/6, 6/6	140/90	"O" POSITIVE	105	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
24	MANOJ KUMAR	32Y/M	BM472	167CM	80KG	6/6, 6/6	140/70	"A" POSITIVE	135	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
25	SOMVEER	26Y/M	CSAB001160	163CM	54KG	6/6, 6/6	120/70	"A" POSITIVE	99	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
26	AJIT KUMAR	24Y/M	CSAB001287	164CM	61KG	6/6, 6/6	120/70	"B" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
27	VINOD BADAN	52Y/M	CSAB000068	168CM	72KG	6/9, 6/9	130/80	"A" POSITIVE	105	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
28	NIKHILESH	29Y/M	BMRC5AB1212	171CM	60KG	6/6, 6/9	120/80	"A" POSITIVE	125	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
29	VINOD KUMAR	40Y/M	CSAB001340	166CM	61KG	6/6, 6/9	140/80	"B" POSITIVE	97	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
30	RAJESH	50Y/M	JBT52019	165CM	76KG	6/9, 6/9	140/80	"A" POSITIVE	110	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
31	MANMOHAN	30Y/M	CSAB001319	168CM	74KG	6/9, 6/9	120/70	"O" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
32	MANJEET SINGH	43Y/M	CSAB001238	168CM	80KG	6/9, 6/9	120/80	"A" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
33	VIJAYPAL	45Y/M	BMR965	162CM	63KG	6/6, 6/6	120/70	"O" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
34	RAGHUVVEER SINGH	47Y/M	GLO405	172CM	58KG	6/6, 6/6	120/80	"O" POSITIVE	104	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
35	KRISHAN KUMAR	40Y/M	OM527	167CM	69KG	6/9, 6/9	140/90	"A" POSITIVE	108	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
36	PARSHANT	37Y/M	CSAB1167	168CM	63KG	6/6, 6/6	120/80	"O" POSITIVE	101	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
37	MAHENDRA PAL	34Y/M	CSAB000226	165CM	58KG	6/6, 6/9	120/70	"O" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
38	ROKI KUMAR	38Y/M	GLO436	172CM	69KG	6/6, 6/6	120/80	"A" POSITIVE	118.3	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
39	VIKAS YADAV	27Y/M	CSAB001171	164CM	66KG	6/6, 6/6	100/70	"AB" POSITIVE	120.5	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
40	MULCHAND	49Y/M	BM495	169CM	64KG	6/6, 6/6	140/90	"AB" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
41	SUBHAM	25Y/M	BMR493	178CM	66KG	6/6, 6/9	130/80	"O" POSITIVE	103	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
42	JATIN	22Y/M	GLOB00514	177CM	61KG	6/6, 6/6	130/80	"B" POSITIVE	130	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
43	SAURAV	30Y/M	GLO041	168CM	58KG	6/6, 6/6	120/80	"A" POSITIVE	108	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
44	HIMANSHU	31Y/M	CSAB00002	178CM	89KG	6/6, 6/6	120/80	"O" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
45	HARKEESH	45Y/M	BMR20	165CM	75KG	6/6, 6/9	140/70	"B" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
46	AMIT KUMAR	28Y/M	CSAB001197	150CM	52KG	6/6, 6/9	140/90	"B" POSITIVE	90	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
47	SUSIL KUMAR	29Y/M	CSAB000583	171CM	80KG	6/6, 6/6	140/90	"O" POSITIVE	125	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
48	CHEITRAM	50Y/M	OM17	162CM	71KG	6/6, 6/9	165/90	"O" POSITIVE	90.4	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED CARDIOLOGY / EYE CONSULTANCY, HIGH BP
49	MANOJ KUMAR	34Y/M	BMR134	179CM	73KG	6/6, 6/9	110/70	"B" POSITIVE	141	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY



50	PARDEEP	25Y/M	BM016	164CM	89KG	6/6, 6/6	160/90	"A" POSITIVE	105	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED RADIOLOGY CONSULTANCY, HIGH BP
51	DABLU	25Y/M	CSAB000378	162CM	60KG	6/6, 6/6	140/90	"AB" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
52	SOHAN	22Y/M	CSAB000824	163CM	50KG	6/6, 6/9	120/60	"B" POSITIVE	112	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
53	DASRATHRAJ KUMAR	37Y/M	OM280	155CM	71KG	6/9, 6/9	130/80	"AB" POSITIVE	135	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
54	PARVEEN	32Y/M	CSAB000384	178CM	80KG	6/6, 6/6	130/80	"B" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
55	BIJENDER	36Y/M	BMR0318	166CM	62KG	6/6, 6/9	120/70	"O" POSITIVE	105	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
56	JAGAT PAL	35Y/M	BMR0034	163CM	53KG	6/6, 6/9	130/70	"A" POSITIVE	105	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
57	AJAY KUMAR	23Y/M	CSAB000951	174CM	70KG	6/6, 6/6	120/80	"O" NEGATIVE	86	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
58	MAHESH	32Y/M	GL109	164CM	64KG	6/9, 6/9	120/70	"A" POSITIVE	86	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
59	SAHIL KUMAR	26Y/M	CSAB001173	170CM	75KG	6/9, 6/9	110/80	"AB" POSITIVE	102	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
60	PARDEEP	29Y/M	CSAB1179	167CM	74KG	6/6, 6/6	120/80	"A" POSITIVE	105	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
61	PARVEEN	40Y/M	BMR1381	175CM	87KG	6/6, 6/6	120/80	"AB" POSITIVE	105	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
62	PARAMJEET VERMA	26Y/M	CSAB000835	156CM	82KG	6/6, 6/6	140/90	"O" POSITIVE	106	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
63	SALIM AHMAD	22Y/M	CSAB000825	167CM	66KG	6/6, 6/6	120/60	"AB" POSITIVE	110	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
64	MUKESH	22Y/M	CSAB1383	170CM	59KG	6/6, 6/6	110/70	"A" POSITIVE	103	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
65	SANJAY KUMAR	33Y/M	CSG1138	175CM	70KG	6/6, 6/6	130/70	"B" POSITIVE	119	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
66	SWADESH	36Y/M	CSAB00179	160CM	47KG	6/6, 6/6	100/60	"O" POSITIVE	102	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	LOW BP NEED PHYSICIAN CONSULTANCY
67	DEEPAK	33Y/M	OM30	172CM	76KG	6/6, 6/6	140/70	"B" POSITIVE	140	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
68	ROHIT	28Y/M	CSAB001080	171CM	62KG	6/6, 6/6	140/90	"B" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
69	AMARJEET	24Y/M	OM1265	165CM	55KG	6/6, 6/9	130/70	"A" POSITIVE	108	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
70	SANDEEP	20Y/M	CSAB001026	167CM	56KG	6/6, 6/6	130/80	"O" POSITIVE	100	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
71	ABHISHEK	21Y/M	CSAB001213	170CM	57KG	6/6, 6/6	130/80	"A" POSITIVE	99	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
72	BIJENDER KUMAR	35Y/M	CSAB00115	164CM	65KG	6/6, 6/6	130/90	"AB" POSITIVE	105	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
73	JASHVIR SINGH	47Y/M	JBT59182	165CM	90KG	6/6, 6/6	160/90	"O" POSITIVE	120	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED RADIOLOGY CONSULTANCY, HIGH BP
74	RAJNARAYAN	27Y/M	CSAB001213	167CM	65KG	6/6, 6/6	120/80	"B" POSITIVE	93	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
75	HARDEEP	28Y/M	9253	173CM	73KG	6/6, 6/6	120/70	"A" POSITIVE	135	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
76	ARVIND	25Y/M	CSAB001251	172CM	90KG	6/6, 6/6	130/80	"B" NEGATIVE	112	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
77	MAHENDRA SINGH	38Y/M	BM336	173CM	77KG	6/9, 6/9	130/80	"O" POSITIVE	103	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
78	MUKESH KUMAR	39Y/M	136	167CM	68KG	6/9, 6/6	120/80	"B" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
79	SANTOSH KUMAR	40Y/M	CSAB00408	161CM	52KG	6/6, 6/9	140/90	"A" POSITIVE	105	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
80	MAHENDER KUMAR	55Y/M	184CM	100KG	6/6, 6/6	150/90	"O" POSITIVE	110	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED RADIOLOGY / EYE CONSULTANCY, HIGH BP
81	DHARMENDER	26Y/M	CSAB001245	177CM	58KG	6/6, 6/9	100/60	"A" POSITIVE	145	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	LOW BP NEED PHYSICIAN CONSULTANCY
82	SACHIN	20Y/M	CSAB000437	167CM	56KG	6/6, 6/6	110/60	"A" POSITIVE	99	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	LOW BP NEED PHYSICIAN CONSULTANCY
83	SARWAN	47Y/M	SECURITY	170CM	69KG	6/6, 6/6	110/60	"A" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	LOW BP NEED PHYSICIAN CONSULTANCY
84	RAJNISH	24Y/M	CSAB000919	175CM	66KG	6/6, 6/6	110/70	"O" POSITIVE	102	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
85	ARVIND KUMAR	42Y/M	BHW001038	176CM	85KG	6/6, 6/6	130/80	"O" POSITIVE	82	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
86	MOHD SHAKIL	26Y/M	OM312	167CM	74KG	6/6, 6/6	130/80	"O" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
87	SHATRUDHAN	25Y/M	CSAB000694	172CM	52KG	6/6, 6/6	110/60	"O" POSITIVE	101	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	LOW BP NEED PHYSICIAN CONSULTANCY
88	SANT KUMAR	45Y/M	OM217	170CM	73KG	6/6, 6/6	130/90	"O" POSITIVE	112	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
89	PANKAJ	26Y/M	CSAB001382	164CM	64KG	6/6, 6/6	120/70	"B" POSITIVE	123	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	LOW BP NEED PHYSICIAN CONSULTANCY
90	VINAY TIWARI	39Y/M	CSAB000067	168CM	168KG	6/6, 6/9	120/80	"AB" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
91	MURARI PRASAD	35Y/M	JBT52059	166CM	68KG	6/6, 6/6	120/80	"AB" POSITIVE	120	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
92	GUMAN SINGH	42Y/M	CSAB000980	168CM	86KG	6/6, 6/6	150/90	"A" POSITIVE	102	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED RADIOLOGY / EYE CONSULTANCY, HIGH BP
93	RAM	40Y/M	CSAB00142	153CM	47KG	6/6, 6/6	110/60	"AB" POSITIVE	108	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
94	RAJESH KUMAR	46Y/M	BMR385	162CM	69KG	6/6, 6/9	130/70	"A" POSITIVE	101	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
95	MANISH	40Y/M	OM189	169CM	74KG	6/6, 6/6	110/80	"B" POSITIVE	101	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
96	ASHOK	27Y/M	CSAB001267	159CM	52KG	6/6, 6/6	120/80	"B" POSITIVE	95	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
97	PARVEEN KUMAR	35Y/M	BMR360	164CM	55KG	6/6, 6/6	170/100	"B" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED RADIOLOGY CONSULTANCY, HIGH BP
98	ARVIND	32Y/M	CSAB00200	166CM	58KG	6/6, 6/6	140/80	"A" POSITIVE	100	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
99	YOGESH KUMAR	32Y/M	CSAB000383	178CM	67KG	6/6, 6/6	110/65	"B" POSITIVE	123	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	LOW BP NEED PHYSICIAN CONSULTANCY
100	SATISH	35Y/M	OM98	168CM	78KG	6/6, 6/6	130/80	"B" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
101	VIRENDER	32Y/M	OM101	171CM	70KG	6/6, 6/6	130/80	"AB" POSITIVE	109	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
102	KAMALJEET	30Y/M	CAB00367	174CM	65KG	6/6, 6/6	110/70	"B" POSITIVE	108	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
103	AKHIL YADAV	23Y/M	CSAB00715	173CM	72KG	6/6, 6/6	110/70	"B" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
104	AKASH KHAIRWAR	20Y/M	CSAB001271	154CM	48KG	6/6, 6/6	120/70	"AB" POSITIVE	116	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK



105	SANDEEP	34Y/M	CSAB00245	165CM	91KG	6/6, 6/6	150/100	"O" POSITIVE	132	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED CADIOLOGY / EYE CONSULTANCY , HIGH BP
106	ROHITASH	24Y/M		176CM	71KG	6/6, 6/6	130/80	"A" NEGATIVE	99	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
107	RAMSWAROOP	34Y/M	BHW00848	170CM	61KG	6/6, 6/6	120/70	"A" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
108	ABHISHEK KUMAR	39Y/M	BM346	168CM	56KG	6/6, 6/6	130/90	"A" POSITIVE	75	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
109	MANISH	33Y/M	CSAB00486	164CM	65KG	6/6, 6/9	120/70	"B" POSITIVE	91	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
110	NEERAJ	22Y/M	CSAB001134	173CM	58KG	6/6, 6/6	120/70	"A" POSITIVE	125	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
111	BRAMHAMDUTTA	34Y/M	BMR 541	162CM	70KG	6/6, 6/6	120/80	"A" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
112	RAVENDRA	21Y/M	CSAB001268	170CM	46KG	6/9, 6/9	120/80	"B" POSITIVE	89	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
113	HEMRAJ	39Y/M	CSAB000328	182CM	89KG	6/6, 6/6	130/80	"A" POSITIVE	89	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
114	HARISH	30Y/M	2007	170CM	82KG	6/6, 6/6	140/80	"B" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
115	AKASH	28Y/M	CSAB001384	160CM	68KG	6/9, 6/9	120/80	"O" POSITIVE	104	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
116	PRAKASH CHAND	40Y/M	BMR09	171CM	97KG	6/6, 6/6	140/90	"O" POSITIVE	89	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
117	KAMLESH	27Y/M	CSAB001387	164CM	57KG	6/6, 6/9	120/70	"A" POSITIVE	99	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
118	PRADEEP	30Y/M	CSAB00710	169CM	64KG	6/6, 6/9	140/90	"AB" POSITIVE	98	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
119	SANJAY KUMAR	42Y/M	BM.04	174CM	76KG	6/6, 6/9	120/80	"O" POSITIVE	120	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
120	HARIKESH	29Y/M	CSAB 001003	165CM	80KG	6/6, 6/9	140/80	"A" POSITIVE	100	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
121	AJIT	45Y/M	OM-181	168CM	64KG	6/6, 6/9	120/80	"A" POSITIVE	99	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
122	RAKESH KUMAR	49Y/M	JBT52028	168CM	55KG	6/6, 6/9	120/80	"B" POSITIVE	102	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
123	MURARI	20Y/M	CSAB001319	165CM	50KG	6/6, 6/9	130/90	"O" POSITIVE	99	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
124	JAIBIR	39Y/M	CSAB000018	168CM	74KG	6/6, 6/9	130/80	"B" POSITIVE	102	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
125	NAJIM KHAN	30Y/M	CSAB001231	167CM	64KG	6/6, 6/6	120/80	"B" POSITIVE	89	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
126	CHARAN SINGH	31Y/M	CSAB000025	172CM	72KG	6/6, 6/6	120/80	"B" POSITIVE	115	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
127	DAVENDER	30Y/M	CSAB001082	180CM	97KG	6/6, 6/6	120/70	"B" POSITIVE	101	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
128	DHARMVEER SINGH	41Y/M	JBST2026	170CM	65KG	6/6, 6/6	140/80	"O" POSITIVE	114	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
129	DHARMJEET	38Y/M	CSAB001180	157CM	61KG	6/6, 6/6	130/80	"AB" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
130	IRFAN	24Y/M	OM-337	166CM	68KG	6/6, 6/9	120/80	"AB" POSITIVE	110	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
131	SUJEET KUMAR PATEL	36Y/M	CSAB00227	161CM	69KG	6/6, 6/9	120/80	"AB" POSITIVE	101	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
132	VINOD KUMAR	31Y/M	CSAB00821	168CM	68KG	6/6, 6/6	130/80	"B" POSITIVE	102	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
133	RENU	28Y/M	CSAB000948	168CM	75KG	6/6, 6/9	130/80	"AB" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
134	HARBBIR	32Y/M	BMR-323	166CM	60KG	6/6, 6/6	130/70	"B" POSITIVE	82	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
135	RAHUL	32Y/M	CSAB001240	166CM	66KG	6/6, 6/6	120/70	"O" POSITIVE	85	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
136	MANOJ KUMAR	34Y/M	BMR-400	178CM	62KG	6/6, 6/6	130/80	"AB" POSITIVE	110	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
137	NARESH CHAND	44Y/M	OM-111981	182CM	84KG	6/9, 6/12	120/70	"B" POSITIVE	101	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
138	SANDEEP	26Y/M	CSAB001239	176CM	60KG	6/6, 6/6	120/70	"A" POSITIVE	86	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
139	RAGHUVENDRA	23Y/M	CSAB001232	166CM	66KG	6/6, 6/6	130/70	"AB" POSITIVE	105	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
140	PANKAJ KUMAR	23Y/M	GLO-414	176CM	62KG	6/6, 6/6	140/80	"A" POSITIVE	91	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
141	JITENDER KUMAR	25Y/M	CSAB001272	164CM	53KG	6/6, 6/6	120/70	"A" POSITIVE	115	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
142	AJIT KUMAR	32Y/M	CSAB001046	169CM	83KG	6/6, 6/6	130/90	"A" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
143	GHANSHYAM	34Y/M	BMR-443	161CM	61KG	6/6, 6/6	120/60	"O" POSITIVE	96	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
144	NIRAJ KUMAR	34Y/M	GLO-423	161CM	63KG	6/6, 6/6	130/70	"B" POSITIVE	91	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
145	AVNEESH	20Y/M	CSAB001269	165CM	48KG	6/9, 6/9	140/90	"A" POSITIVE	103	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
146	HARKESH	23Y/M	CSAB000420	172CM	71KG	6/6, 6/9	130/70	"O" POSITIVE	100	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY
147	DEEPAK	33Y/M	OM-30	172CM	76KG	6/6, 6/6	130/70	"B" POSITIVE	140	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	FIT FOR WORK
148	HARKESH	23Y/M	CSAB000640	172CM	71KG	6/6, 6/9	140/80	"B" POSITIVE	115	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	MONITORING BP
149	ADHIK DAS	45Y/M	OM-0197	159CM	47KG	6/6, 6/12	170/100	"B" POSITIVE	120	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED CADIOLOGY CONSULTANCY , HIGH BP
150	KALPNA	25Y/F		157CM	47KG	6/6, 6/6	110/70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	FIT FOR WORK
151	HANSRAJ	42Y/M		171CM	83KG	6/6, 6/6	130/70	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	FIT FOR WORK
152	CHATARPAL	45Y/M	GL438	155CM	46KG	6/6, 6/9	110/70	"A" POSITIVE	90	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NORMAL	NEED EYE CONSULTANCY



Emergency Response Plan



JSW Steel Coated Products Limited, Bawal

Emergency Response Plan



Document Control Details



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Procedures amended by Rules and Procedure SIC for "Emergency Response Plan".

DOCUMENT ISSUE: -

The procedure for "Emergency Response Plan" issued by the Apex Safety Committee on behalf of JSW Steel Coated Products Limited management and form a part of the JSW integrated management system.

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1.0 Introduction

Industrial and commercial developments in addition to growth of cities and modern settlements has given rise to many risk / hazards to safe living.

Hence considering possibilities of various risks it is imperative to start, **“Disaster / Emergency Management System”** to control or prevent the possible likely hazards.

This being Engineering Industry, the hazards are not like the one in Chemical, Pharmaceutical, Petroleum or such industries.

However, it is very important to know our emergency preparedness and Disaster Management Plan is tool to curb the **“Emergency Situations”**.

BRIEF DESCRIPTION OF THE MANUFACTURING PROCESS

JSW SCPL BAWAL PROCESS DESCRIPTION-

PICKLING PROCESS:

JSW SCPL Bawal has installed Push Pull Type Hydrochloric Acid Bath Pickling Line. It can process HR Coils up to 1250mm width and thickness up to 4.0mm max. Acid bath cleaning and rinsing of HR Coils is a standard process before cold rolling.

Our Pickling Line has got certain important features to produce best quality materials in a very clean environment viz:

- Variable Frequency Drives to adjust the speed of line.
- Auto Temperature Control of Acid Baths to maintain consistency in quality of the pickling. Wet Scrubber Fume exhaust system to have clean environment in the plant.
- Energy efficient system incorporating VFDs & SCADA automation to be cost effective.





6 Hi COLD ROLLING MILL

6 Hi single stand, high tension, reversible mill is installed for cold rolling of the pickled coils to the desired thickness as low as 0.13mm. Mill has all the capability and capacity to produce cold rolled sheet of practically tabletop flatness.

Good Quality material output has been ensured by way of the following technology adopted in the mill:

- Online Sheet thickness measurement and hydraulic gauge correction system.
- Optimum utilization of capacity by implementation of Auto Pass Schedule.
- Consistently good quality material output through computerized controls of mill's operational parameters through VFDs & SCADA Automation.
- Higher yields achieved through intermediate & coil ends slow down controls.



CONTINUOUS GALVANIZING LINE

JSW SCPL Bawal has installed Hot Dip Galvanizing line with all the facilities to produce high quality Galvanized steel Coils/Sheets. The salient features are:

- Continuous chemical cleaning process
- Further cleaning and annealing through Non-Oxidizing Controlled environment through Non-Ox Furnace to achieve best adhesiveness of Zinc coating.
- Online Skin Pass Mill to provide desired surface finish, Uniform, and controlled thickness to microns level accuracy.
- Online Tension Leveler to eliminate shape defects such as coil set, crossbow, crown, camber, and center buckle. In short, a TABLETOP, ZERO SPANGLE FLAT STRIP is produced.
- Online coating thickness measurement system ensures uniform coating across the width and length of sheet.
- Line & Non-Ox Furnace have centralized controls through VFDS Drives & SCADA automation.





COLOUR COATING LINE



This plant has got all the capability and capacity to produce high quality Colour Coated Coils / Sheets to meet the requirements of technologically advanced infrastructure steel and O.E.M sector like white goods and automotive industries. The line consists of:

- Chemical cleaning of the strip
- Chemical coaters to ensure the best adhesiveness of paint.
- Coater from GFG, USA, world's best coater plant supplier – to ensure uniform coating of paint.
- Guide Film for surface protection during transit and storage.



Objective of On-Site Emergency Plan:

Industrial and commercial developments have led to many benefits and created risks to nature and life. Man has been fighting different emergencies throughout ages whether it is a natural emergency or emergency due to artificial cause. The first and foremost importance is given to saving of Human life in any kind of emergency. The after actions will depend upon different effects of the emergency and control actions shall be focused as per gravity of the dangers and importance of preserving the lives and nature around.

The objective of this On-Site Emergency Plan is to provide framework and organizational set up for achieving following goals and combating emergency.

- Identification of emergencies.
- The mitigation measures to reduce and eliminate the risk.
- To prevent casualties- both on-site and off-site.
- To reduce damage to property, machinery, public and environment.
- Emergency preparedness and periodic inspections, trials and recording observation.
- To develop a state of readiness for a prompt and orderly response to an emergency and to establish a high order of preparedness (equipment, personnel) commensurate with the risk.
- To provide an incident management organogram with clear missions and lines of authority.
- To ensure an orderly and timely decision-making and response process (notifications & SOP's).
- Know the risk and controlling measures for safe operations.
- Provide Training and Resources for controlling and combating emergency.

The Emergency Prone Areas:

- RLNG Station and RLNG supply points in CGL-1, CGI-2, CCL, HR CGL, and Boiler.
- Fire /explosion in lines - Galvanizing, Color coating & pickling, N2 Plant and Boiler.
- RLNG studs at in CGL-1, CGI-2, CCL, HR CGL, and Boiler.
- Storage Yard for DG Set - HSD storage.
- Storage of Hydrochloric Acid near Pickling.
- Fire due to Electrical Cause in of the plant area or other buildings / offices.
- 6-Hi, Mill hydraulic cellar CGL2 SPM Oil Cellar – Fire.
- 6-Hi Mill, CGL1&2, CCL, pickling, CRS, Trimmer, CTL Fire Coolant / Oil leakage.
- Gas cylinder leakage - Fire &/or Blast &/or toxic gas release.
- Storage of paint barrels at Color Coating Lines & paint storage area.
- Fire at waste oil storage & waste oil handling shed.
- Fire due to wild grass and weeds inside & near-by company premise due to human activities related to torching fields etc. after winter.
- Vehicles accidents - carelessness, speed, wrong side driving, reversing etc.



Resources for controlling emergency:

Details of Emergency Equipment's, Fire Detection Fire Fighting:

- **Fire/Smoke Detection System.**
 - Fire/Smoke detectors are provided in administrative buildings (34 Nos.)

- **Fire Protection System.**
 - Fire Extinguishers
 - Fire Hydrant System
 - Fire Sprinkler- Ammonia Storage
 - Sand Bucket

- **Emergency Infrastructure.**
 - Occupational Health Centre
 - Basic Life Support Ambulance
 - Portable Stretcher
 - Fire Blankets
 - Emergency Siren

Emergency Response Plan



- **Details of Fire Extinguishers.**

Plant	Type of Fire Extinguishers				Total
	ABC Type	Foam Type	CO2 Type	Clean Agent	
All	130	16	47	9	201

- **Details of Fire Hydrants**

- Fire hydrant lines are provided all over the plant in all sheds. Main line 150 MM and outlets 80 mm.
- Total 27 Hydrant Post with 23 hose reel hose and one fire monitor at scrap yard

- **Details of Fire Pumps: - Fire Water Reservoir Capacity 300 KL**

Description	Jockey Pump	Main Pump	Diesel Engine
Capacity	10M3/hrs	171M3/hrs	171M3/hrs
Power	Electric Driven	Electric Driven	Diesel Driven
Quantity	01	01	01

Details of Emergency Equipment's:

Sr. No	Equipment's	Quantity
1	SCBA	02
2	Stretcher	05
3	First Aid Box	12
4	Fire Blanket	06
5	Emergency Siren	01
6	Life Buoy	02
7	Ambulance	01
8	Occupational Health Centre	01
9	Windsock	02

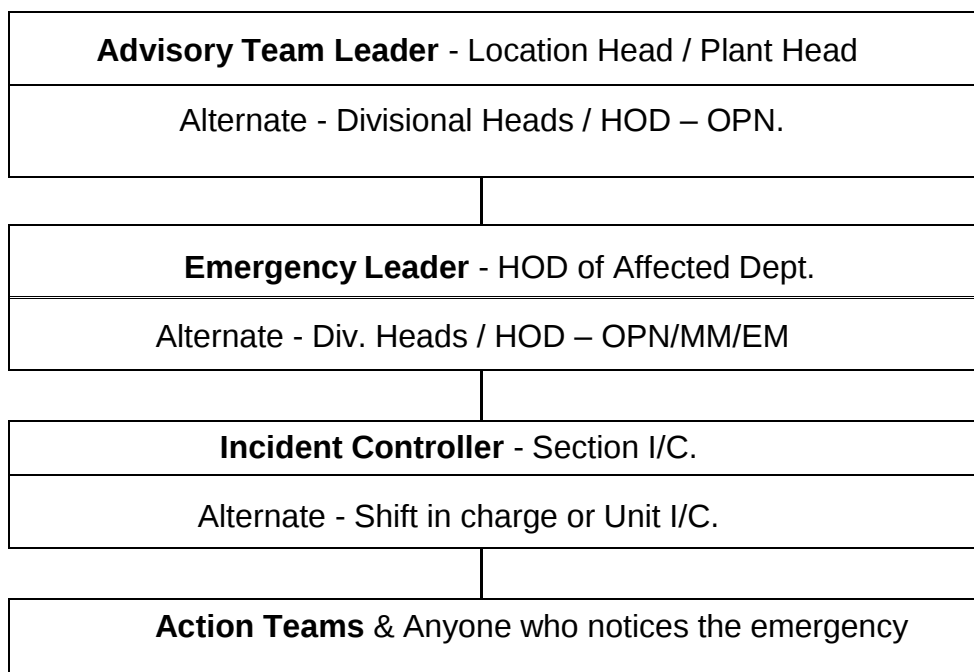


ON SITE EMERGENCY PLAN SET UP

Emergency control system's focal point is the "Control Center" located in "Security cabin at the Time Office gate". The other facilities provided at "Emergency Control Center" are as below:

- This place has telephone access within the plant as well as outside the plant.
- List of all possible emergency services providers with their contact numbers & address.
- Contact numbers of key persons of the plant.
- List of advisory teams.
- The location is relatively safe considering potential hazards.
- It is easily accessible to the persons who are to take charge as Advisory Team.
- The outside help required if any can be controlled from this point.
- Telephone line connecting the center to all areas of the company specially those prone to emergency as well as to outside for obtaining emergency services.
- Internal telephone directory of the company including contact numbers of residences of seniors.
- Note pads, pen, pencil & other stationary for recording any details at the time of incident.
- List of Disaster team members.
- Stock of safety equipment's like gloves, mask etc.
- List of contacts of external emergency services.

The responsibility wise structure and the reporting of the incidence is to be done from bottom to top with flow of instructions from top to bottom as given below:



Emergency Response Plan



- The **Plant Head** (Location Head/Plant Head) will take charge of the Emergency Control Operation as soon as emergency is declared, along with team designated as “**Advisory Team**”.
- Divisional Head of the unit where emergency occurs will take charge of the situation as “**Emergency Leader**” to pass on instructions from Advisory Team to **Incident Controller** & Action Teams.
- Departmental Head will be designated as “Incident Controller” and all people working to control the situation at the exact location work under “Incident Controller”.
- The Action Teams controls the actual situation by reporting emergency actions progress and receiving instructions from Incident Controller / Emergency Leader.

Assembly Points: **_For employees who are not part of Emergency Teams**

- Head Count to be reported to Human Resources Department
- Wind direction to be determined by the WINDSOCK installed on top of the STP side wall & at Ammonia Storage Yard. The employees should run perpendicular to the wind direction and not against / along the wind direction.
- Main gate (Assembly Point) : For people working in all lines (HRS, Pickling, ETP, STP, 6-Hi Mill, CRS, Trimmer, CGL1&2, CTL, CCL, workshop, scrap yard) and Administration Block etc.

In case of all the plant evacuation the Head Count will be done as per gate entry register

- Our employees shall guide the VISITORS to the Assembly Point during emergency. The Security Department & Human Resources Department shall tally the Head Count including visitors. The Government Officers and employees coming inside plant during emergency shall also be included in Head Count.

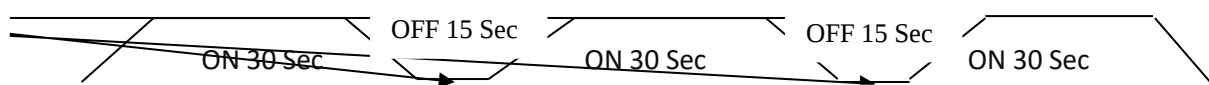


Codification of Siren

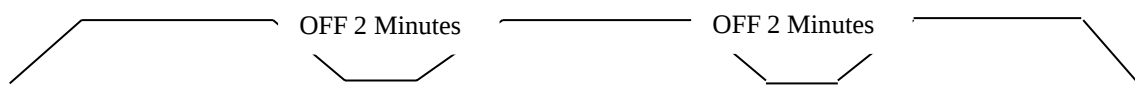
Suggested Siren Code (As per OISD 117):

1. SMALL FIRE: No siren

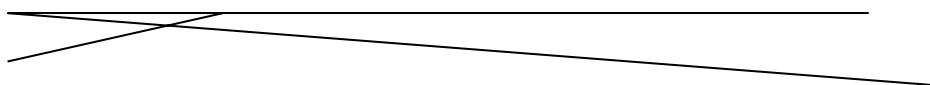
MAJOR FIRE: A wailing siren for two minutes. Sirens will be sounded three times for thirty seconds with an interval of fifteen second in between. ON 30 Sec ON 30 Sec ON 30 Sec



2. DISASTER: Same type of siren as in case of Major Fire but the same will be sounded for three times at the interval of two minutes. ON 30 Sec ON 30 Sec



3. ALL CLEAR (For fire): Straight run siren for two minutes. ON 2 minutes



5. TEST: Straight run siren for two minutes.

Note:

- 1) Emergency siren to be sounded only if required
- 2) All employees in areas other than affected to continue work unless disaster siren is blown.
- 3) No emergency organization member will leave the emergency spot unless 'all clear' siren is blown.



Responsibility of Emergency Management

The responsibility of the different teams shall be as defined below:

1. Advisory Team:

- On hearing the emergency alarm or message, will proceed to the Emergency Control Center.
- Remain with the emergency leader at the Emergency Control Center & advise him.
- In case the emergency leader must leave his post for some reasons, any one of the members of the advisory team will take over as the emergency leader.
- If needed, Works - Location Head/Head Works can depute Emergency Leader to the site to be of help to Incident Controller.
- Deal with media and provide necessary information found fit for disclosure.

The Advisory Team shall satisfy checking following mainly:

- Delegate the responsibility of site of emergency to the Emergency Leader.
- Take immediate stock of the situation in the factory.
- Ensure that all-important function of Disaster Management Plan is being followed.
- All control points are properly manned & lines of communication kept open.
- Ensure that factory medical officer is informed and called to the factory if need identified.
- Keep ready ambulance and other vehicles.
- Ensure that mutual aid members or emergency team members remain ready.
- Inform concerned Govt. Officials like Police, Hospital, and Factory Inspector etc.
- Take stock of the situation, call for findings of roll call from assembly points. Ensure that all persons are safe & evacuate if necessary.
- Send additional help in the form of Stand-by team to help or relieve the team which has already been engaged in emergency control operations.
- Once the situation is brought under control or normalized start rehabilitation giving necessary instructions to the Personnel Manager.
- Conduct inquiry as to the cause of the incident in-full details with a view to ascertain the root cause and take all necessary actions to avoid recurrence of the incident in future.
- Revise On Site Emergency Plan, if necessary, after reviewing the performance in the present situation. Make change in the composition of various teams depending upon the performance of various individuals. Acknowledge the services of person who have made notable contribution during the emergency.



2. Emergency Leader (Divisional Head/Alternate Affected Dept. HOD):

Co-ordinate all activities from Emergency Control Center (Main Gate)

- Assess extent & nature of emergency.
- In consultation with Advisory Team, decide upon following matters.
 - ✓ Sequential stoppage of operation as per requirement.
 - ✓ Arrange & provide emergency squad and systems to the emergency spot/ area.
 - ✓ Organize necessary ambulance & medical treatment for affected persons.
 - ✓ Arrangement of necessary hospitalization of victims.
 - ✓ Evacuation of site (partial or full), if required.
 - ✓ Preserve evidence and organize investigation.
 - ✓ Before allowing re-entry to the site check if the conditions are safe (Toxicity, Fire hazard, Structural stability etc.).
 - ✓ Restarting of the plant only after clearance from concerned authorities.
 - ✓ Restarting of operations only after ensuring steps for prevention of recurrence.
 - ✓ Inform neighboring industries and inform concerned authorities if required.
 - ✓ Arrange evacuation of neighboring population if needed & deal with media.

3. Communication Team 1, 2 & 3:

3a. Communication Team 1 (Telephone Operator):

- On receipt of information of the emergency, inform the security giving details about location & nature of emergency.
- Inform Emergency Leader by telephone.
- Await further instructions from Emergency Leader.
- Keep telephone free from incoming calls.
- Inform others as decided by Emergency Leader

3b. Communication Team 2: (Administrative Personnel / Public Relations - Managers):

On hearing emergency alarm & communication regarding emergency take actions:

- Proceed to the control center and take instructions from Emergency Leader.
- Arrange medical aid fire brigade if required.
- Inform police & neighboring industries if advised by Emergency Leader & Advisory Team.
- Communicate with District Magistrate in consultation with the Emergency Leader.
- Inform surrounding population with help of police, if needed.
- Arrange appropriate transport as per requirement.



3c. Communication Team 3 (Security Officer):

Security IC /Officer should:

- Depute guards / Firefighting /emergency squad to the site of Emergency.
- Arrange for control of traffic at Main Gate & Time Office Gate.
- Prevent unauthorized entry & disallow new visitors inside, ask them to wait or go.
- Depute guards to control traffic at scene of emergency.
- Inform about location of Emergency-to-Emergency Squad.

Other Security Staff:

- Remain at Staff /Time office gate unless instructed by Security in charge.
- Inform location of emergency-to-emergency team members.
- Prevent unauthorized entry and arrange roadblocks as instructed.
- Co-ordinate evacuation arrangement as advised by Security IC.

4. Incident Controller (HOD, Shift IC, Sec IC):

On Hearing the alarm or getting information, will proceed to the site of the incidence, will assume the responsibility of the **Incident Controller**, and take over the charge from Shift IC.

- Assess extent and nature of emergency and set up a control post at the safest place.
- Keep the **Emergency Leader** informed about emergency.
- Arrange sequential stoppage of operation as per requirement.
- Take decision of evacuation from site and inform **“Emergency Leader”** accordingly.
- Take head count of the section to ensure safety of the personnel and arrange rescue operations etc.
- Arrange to remove casualties to Medical Center.
- Co-ordinate the activities with Security and the Emergency team to control incident.
- Preserve all evidence for investigation.
- Restart the operations only after having **“All Clear”** from Emergency Leader.

5. Responsibilities of the Action Teams:

5a. Action Team A: (Shift IC / HOD of the affected Dept. & Fire Fighting Squad):

The Shift IC of that affected area shall

- Inform the Emergency Control Center (1515), Security (1543/1599), OHC (1555) if required and Safety Dept. (1546) about the location and nature of emergency and call “Emergency Team Members”.
- Inform concerned Sec IC, HOD and Divisional Head.
- Minimize the consequence by.
 - Eliminating source of ignition, leakage, overflow & overflow & another hazard.
 - Shutting down the operation as per requirement and other areas as guided by the **Incident Controller**

Emergency Response Plan



- Arranging to activate the Hydrant System.
- Ensuring the appropriate use of firefighting material by the firefighting squad.
- Stopping the loading & unloading operations.
- Evacuating the plant if required in consultation with “**Incident Controller**”.

Head of Department: Take over the responsibilities of the Shift IC upon arrival.

Security & Fire Fighting Squad:

- Proceed to the scene of Emergency.
- Consult the Shift IC and HOD to decide the line of action and depute teams.
- Ensure the stock of Fire Fighting material.

5b. Action Team B (Shift IC of neighboring dept. / Sec IC HOD of Neighboring Dept Manager /Sec IC (Maintenance) / Manager /Sec IC (Electrical):

On hearing emergency alarm & in consultation with the Emergency Leader

- Ensure that fire hydrant pumps are in operation.
- Shut of feed of chemicals or material to affected area.
- Inform people in the area about emergency.
- Prepare for evacuation if reqd. and arrange head count. Repeat at Assembly point.

HOD/Sec IC:

- Proceed to own area.
- Take over responsibilities from Shift IC and be ready to shut down plant if needed.
- Evacuate staff to Assembly point if necessary.

Manager / Sec IC (Maintenance):

- Provide engineering assistance to the Emergency Leader.
- Be ready with rescue equipment to remove trapped personnel by appropriately.

Manager/Sec IC (Electrical):

- Ensure that adequate power supply is made available for sensitive plant operation and for emergency lighting.
- Make available an Electrician to be at disposal of Incident Controller.
- Ensure safety of all Electrical Installations.



5c. Action Team C: (Security IC / Officer / Safety Officer):

Security IC / Officer shall

- Proceed to scene of Emergency and make arrangement for Traffic Control.
- Arrange security guard at Gates to inform essential personnel.
- Prevent unauthorized entry at Gate and Get additional help if needed.
- Inform requirement of outside Fire Brigade to Manager – Public Relations.
- Arrange **Emergency Management Squad** to fight / control the emergency.

Safety Officer:

- Proceed to the scene of Emergency.
- Ensure adequate supply of safety appliances.
- Inform Factory Inspector and other Authorities in consultation with DH-HR.
- Keep in touch with Medical Officer for progress of injured persons.
- Ensure availability of vehicle for moving injured to Hospital.

5d. Action Team D: (Medical Officers / Nurses / First Aiders / Stores IC):

Medical Officers / Nurses shall

- Keep ambulance ready to proceed to scene of Emergency at short notice.
- Prioritize casualties for treatment and further care & call First Aiders.
- Get help of medical staff for attending all medical requirements.
- Consider sending casualties for Special Treatment & arrange Hospitalization, additional ambulances and prepare documentation.

First Aiders: Proceed to site and Occupational Health Centre as decided by the **Emergency Leader** and **Factory Medical Officer** to render assistance.

Stores in charge: Arrange additional supplies of material or safety equipment.

5e. Action Team E: (All staff members not listed in emergency action team Contract Workman & Supervisors Colony Residents):

On hearing emergency alarm

- Get back to Workplace and await instructions from Supervisors.
- Avoid panic by keeping calm.
- Do not **GO** to place of **Emergency** unless specially instructed by **Emergency Leader**.
- **Contract** persons should stop work and assemble at Main building and be ready to evacuate.



6. Night Shift Emergency Response

These RESPONSIBILITIES are for 24 hours' consideration, however during NIGHT SHIFTS depending upon situation /conditions, the AREA Shift In-Charge shall inform as below.

- HOD of his Department AND Security at Time Office Gate.

Security Department Night In-Charge will inform following persons.

- Mr. Mukti Nath Rai - Plant Head
- Mr. Sunil Jain – Technical Head
- Mr. Vishal L. Wagh – EHS Dept.
- OHC Staff
- Night Roster Duty Officer / Manager

Steps to be undertaken by departments during Emergency.

(I) Responsibility of Human Resources Department:

- a) The Personnel Manager should arrange to keep two persons from his staff ready to work as runners in case of failure of other mode of communication.
- b) The Personnel Manager shall inform OHC staff, and both should contact the Advisory Team. Keep on reporting to advisory team and take instructions.
- c) Keep his staff and equipment ready for action so that there is no loss of time when their services are needed. (Medical, Communication Teams, Resources etc.)
- d) One responsible person shall be provided in the reception to help telephone operator.
- e) To see that all persons not engaged in Disaster Control activity go to the Assembly point.
- f) To conduct the roll call at assembly point to ensure that no persons is missing.
- g) Maintain law and order within the premises.
- h) Report to the Govt. agencies like Police, Factory inspector, Collector etc.
- i) Modify the plan to avoid recurrence of the situation in future.

(II) Responsibility of Anyone Noticing Emergency:

Any person noticing emergency anywhere in the plant should immediately report the situation to the respective Shift IC or Department Head and Security.

The Shift IC & the person should inform emergency details noticed as below.

- Inform the security of exact emergency location and type of emergency.
- Report the situation to his own Shift IC Supervisor.
- Communicate instantly to alarm people regarding emergency.



Emergency Situations & Response Method: -

A. Handling chemical / effluent / oil / hazardous waste spills or leakage:

For minor spills / leakage / spillage and /or effect on environment:

- I. Wear appropriate safety protectives before taking any action.
- II. Check the fumes generation if any and carry out activities away from fumes.
- III. Call persons for help and assistance.
- IV. Ensure only experienced persons are included from working area.
- V. Ask persons new to your area to move to the safe place.
- VI. Arrange plastic or HDPE drums or trays for collection of chemicals.
- VII. Collect material carefully in drums.
- VIII. Send chemical to ETP for treatment.
- IX. Make records of the spills and damage details if any.
- X. Ensure CAPA is decided to avoid recurrence.

For major spills / leakage / spillage and /or effect on environment: -

- a. Inform emergency team members and people near-by.
- b. Raise alarm by panic button, shouting and alerting.
- c. Immediately report to Incident Controller and HOD
- d. Identify the type of chemical or oil spilled and determine the source of all spills or leaks.
- e. Use appropriate protections in handling spilled chemicals or oils.
- f. Decide how to stop the source of leaks or spills and stop the same.
- g. Decide how to collect the chemicals as per location of spill, overflow, leakage.
- h. Check MSDS of the chemical to decide further action.
- i. Do not allow chemical to mix with any reactive material.
- j. Remove or block-off reactive materials in the area/floor.
- k. Decide to contain chemical as per available near-by storage areas, open spaces etc.,
- l. For oil leaks, place an empty container under the source of the leak.
- m. Tie-up or block the pipe or hose or valve.
- n. In case of hot or reactive chemical or toxic chemical plan evacuation.
- o. In very dangerous situation declare plant level emergency.
- p. Call outside help as per situation.
- q. Use appropriate absorbent materials to remove the spills or leaks.
- r. Limit the spill or leak to as small an area as possible.
- s. Contain the spill chemicals within a salvage drum/s.

Recovery Actions: -

- Remove the contaminated clothing & make proper disposal.
- Take shower for 10 to 20 minutes.
- Decontaminate tools used in the removal.
- Clear-up of hazardous materials.
- Make detailed report with CAPA.



B. Fire:

In the event of fire, the following guidelines shall be as follows:

- 1) Raise the ALARM by shouting, press panic button near-by.
- 2) and alert people near-by 2. Report the location of fire and extent of the fire to emergency team of your department as well as Plant Emergency Management Team. Security department and Safety Department be also informed immediately.
- 3) Take following actions till other helps arrives at the site.
 - a) Use the nearest fire extinguisher.
 - b) Start nearest fire hydrant point along with hose pipes.
 - c) Get all the resources mobilized like removal of other flammable material near-by, removing hurdle if any, making proper space etc.
 - d) Ask people other than emergency team to Move Out of the affected area.
 - e) Use firefighting equipment and resources and responds to emergencies as required.
 - f) Initiate orders and command activity with firefighting and other teams like cordoning, salvage, first aid.
 - g) Call external Fire Department if the situation is out of control.
 - h) If situation is getting worse, evacuation shall be planned upon HSE's recommendation and approval of the Plant Head.
 - i) Emergency team members and/or designated personnel shall direct and lead all personnel/workers towards the designated evacuation area &/or assembly points.
 - j) Employees and visitors shall follow the following evacuation guidelines:
 - i) Proceed to the nearest exits, doors or stairs and get out in safer place.
 - ii) Walk fast.
 - iii) Do not run.
 - iv) Proceed to the designated evacuation area.
 - v) Do not go back to get personal items.
 - vi) Wait for a further announcement.
 - vii) Act as per further announcement and instructions.
 - viii) If you feel something important needs to be done, please inform emergency team.

C. In case of injury/'s:

Shout for help and talk with injured, encourage injured and start recovery actions.

- 1) Avoid panic and do not get afraid or frightened.
- 2) DO Not talk about injury so that injured is not shocked or get afraid.
- 3) Call ambulance and get help of medical team.
- 4) Recover the injured person and administer First Aid as per injury type by First Aider.
- 5) Do not attempt to move the injured person if you are not aware of handling back or neck injuries.

Emergency Response Plan



- 6) Report the accident to the management as well as to the Hospital.
- 7) If the injured person is conscious, ask questions and ask him to talk or walk as per situation. This gives confidence to injured.
- 8) In case, injured is not able to walk then arrange for transport for further treatment.
- 9) If injured person is unconscious wait for the arrival of the rescue team BUT put the injured in recovery position i.e., body sideways.
- 10) Do Not give any liquid or water if injured is unconscious.
- 11) Get help of Doctor / Medical expert for further treatment.
- 12) Accompany injured till doctor advises about further actions.
- 13) In case of serious injury take the injured to Jindal Hospital.
- 14) Inform family members of the injured with caution and care to avoid panic.

In case of illness: -

- a) Inform the supervisor.
- b) The Supervisor or first aid nominated person must transfer the sick person to the hospital for proper medical treatment.
- c) If vehicle not available call: **AMBULANCE: 1515/1599/1543 or 01284271515/01284271599/01284271543.**

D. Electric Shock & Medical Emergency:

In case of Electric shock

Break the contact of the person with the source of shock using insulated material like dry wooden plank. If you are aware of the switch to isolate the supply, immediately isolate it. Don't touch the patient or any electrical equipment's.

Don't use any item that is wet to remove or break the contact with the patient and the source of shock.

If you are trained give first aid and immediately call for assistance.

First Aiders to follow the DRABC procedure:

DRABC procedure	
Danger:	Check that there is no danger to yourself if you go to assist.
Response:	Check for response from the patient. e.g., ask if they are OK. Move them only if you know that they have sustained no spinal injuries.
Airways:	Check that the airways are clear.
Breathing:	Look for chest rising, listen for breathing, feel using your cheek or the back of your hand.
Circulation:	Check for pulse.



In case of Heart Attack:

In case if any employee suffers heart attack, if you are trained then only give the victim first aid. Immediately call for help and inform SI/HOD/HR-Admin-Security/EHS.

Call on Emergency Number 1515/01284271515 / OHC-1555/01284271555 immediately and ask for help.

Follow the directions of OHC officer and take the patient to OHC. Give prior information to the nearby hospitals for emergency attention to the patient. The patient to be accompanied by OHC Doctor or any other person nominated by Incident controller manager.

Methodology of Mouth-to-Mouth Resuscitation:

- 1) Place victim on side and remove any foreign matter from mouth with fingers.
- 2) Place victim on back.
- 3) Tilt victim's head back to open airway by lifting chin up to point at the ceiling/sky.
- 4) Close victim's nostrils with fingers.
- 5) Inhale and place your mouth over victim's mouth. Then allow victim to exhale by removing your mouth (use a protective mouthpiece).
- 6) Exhale until victim's chest expands.
- 7) Repeat every five seconds.
- 8) Keep trying until help arrives.
- 9) If problem, check victim for airway obstruction.

E. Natural Calamities (e.g., Earthquake, Flood):

- Report incident to Plant Head.
- Assemble the if necessary to consider “worst case” scenarios and business continuity, as decided by Advisory leader.
- Advisory / Emergency leader shall decide further course of action including evacuation of employees, calling emergency services etc.

If needed Sound Alarms:

- a) Shut Down Equipment.
 - b) Evacuate Area.
 - c) Initiate Rescue Operations.
 - d) Tend to any Casualties.
 - e) Fire Fighting.
 - f) Call for External Aid.
- Monitor the situation and maintain regular communication with employees.
 - Ensure a safe working environment for all employees.



Earthquake:

- In case of earthquake, no siren will be given all the personnel inside the plant are instructed to shut down their operations and come out into open yard and assemble at the assembly points. If required, transportation will be arranged for sending the people to safer places. Rescue operation will be carried out by security personnel for any possible casualties and the same are given first aid treatment shall be provided if required and will be sent to the OHC or nearest hospitals in case of requirement.

Cyclones / heavy winds (Windstorm) & Weather Emergencies:

- Know about the severity / direction of the cyclone from news bulletins / meteorological dept.
- Review the activities / operations planned and stop operations which may create an emergency due to cyclone / high winds.
- Ensure emergency equipment such as emergency generators, emergency lights, torches etc., are available at control room and security.
- Make food & logistic arrangement according to situation.
- Ensure readiness of emergency vehicles, medicines, medical center with staff etc.
- Remain alert for approaching storms and be prepared to seek shelter.
- Protect and relocate vital records.
- Anchor movable outside equipment to protect them.
- WINDSTORM Warning means a WINDSTORM is imminent or has been indicated by Doppler radar or reported by storm spotters. Move to your pre-designated place of safety immediately.
- Severe Thunderstorm Warning means a severe thunderstorm is imminent or has been indicated by Doppler radar or reported by storm spotters.
- Security will initiate the warbler alarm and issue a statement warning all personnel on site in the event of a WINDSTORM warning. What to do during a WINDSTORM warning.
- When the siren and message is heard, go to a safe shelter immediately!
- Put as many walls as possible between you and the outside. Get under a sturdy table and use arms to protect head and neck. Stay away from windows and open spaces.
- If there is no basement, go to an interior room on the lowest level (interior hallways, or restrooms). Do not open windows.
- If at a higher place like go to a ground floor or in an electrical panel room which has no windows. Do not call emergency telephone number unless you need to report an emergency, such as a fire, medical emergency, or severe building damage. Emergency number lines need to be kept open and available for emergency calls.
- Get out of vehicles immediately and go to the lowest floor of a sturdy nearby building.
- If caught outside with no Shelter, lie flat in a nearby ditch or depression and cover your head with your hands. Be aware of potential for flooding.
- Never try to outrun a WINDSTORM in a car or dumper, tipper, or loader; instead, leave the vehicle immediately for safe Shelter. WINDSTORMs are erratic and move swiftly.
- Watch out for flying debris. Flying debris from WINDSTORMs causes most fatalities and injuries.



Flooding:

- Flooding can occur due to major rainstorms, water main breaks, or loss of power to sump pumps.
- If you can do so safely:
- Secure vital equipment, records, drawings, and hazardous materials by moving to higher, safer ground.
- Shut off all non-essential electrical equipment's.
- Wait for instructions from Local authorities.
- Move all personnel to a safe area, away from the building in danger.
- Relocate the vehicles that will be needed after the flood, such as plant trucks, Mobile equipment etc.
- Locate those persons with special needs and aid if possible. Otherwise, provide their location to emergency responders.
- Do not return to the building until instructed to do so by Security / HR/ or Facilities Services.
- Call Local authorities for assistance with flood clean-up.

F. Bomb Threat:

Threat by Telephone

- Any employee receiving such a call should remain calm.
- Engage the caller in conversation and make a written record of his/her statements.
- Listen for background noises and any other information which may identify the caller.
- Do not hang up the telephone even if the caller does.
- Immediately inform the Security Head/HR Head giving all information recorded.
- On receiving the information Security Head/HR Head his deputy shall immediately communicate to all managers, Managers, and department in-charges.

Evacuation

- Avoid evacuation past a known location of a bomb.
- The Plant Head or his deputy is to decide whether to evacuate the entire building or a portion of the building (depending on the nature of the threat) and which exit to use. Inform the police and follow any advice given by the police.
- Evacuate to assembly area.

Locating The Bomb or Suspicious Article

- Do not touch the bomb.
- The Police Bomb Squad will remove or defuse any bomb or suspicious articles.
- Do not operate electrical devices in the area.

When receiving a telephoned bomb threat -

- 1) Do not hang up the phone.
- 2) Record the following information –



TELEPHONE BOMB THREAT CHECKLIST

INSTRUCTIONS: BE CALM, BE COURTEOUS. LISTEN. DO NOT INTERRUPT THE CALLER.
If Possible, **Record the exact wording of the threat.**

.....
.....

YOUR NAME: _____ TIME: : _____ DATE: _____

CALLER'S IDENTITY SEX: Male ___ Female ___ Adult ___ Juvenile ___ APPROXIMATE AGE: ____

ORIGIN OF CALL: Local _____ Long Distance _____ Telephone Booth _____

VOICE CHARACTERISTICS

___ Loud ___ Soft
___ High Pitch ___ Deep
___ Raspy ___ Pleasant
___ Intoxicated _____
 Other

ACCENT

___ Local ___ Not Local
___ Foreign ___ Region
___ Race

SPEECH

___ Fast ___ Slow
___ Distinct ___ Distorted
___ Stutter ___ Nasal
___ Slurred _____
 Other

MANNER

___ Calm ___ Angry
___ Rational ___ Irrational
___ Coherent ___ Incoherent
___ Deliberate ___ Emotional
___ Righteous ___ Laughing

LANGUAGE

___ Excellent ___ Good
___ Fair ___ Poor
___ Foul _____
 Other

BACKGROUND NOISES

___ Factory ___ Trains
___ Machines ___ Animals
___ Music ___ Quiet
___ Office ___ Voices
___ Machines ___ Airplanes
___ Street ___ Party
___ Traffic ___ Atmosphere

3) Ask the caller –

PRETEND DIFFICULTY HEARING - KEEP CALLER TALKING - IF CALLER SEEMS AGREEABLE TO FURTHER CONVERSATION, ASK QUESTIONS LIKE:

When will it go off? Certain Hour ____ Time Remaining.

Where is it located? Building Area.

What kind of bomb? _____

What kind of package? _____

How do you know so much about the bomb? ____

What is your name and address?

If building is occupied, inform caller that detonation could cause injury or death.

Important:

- Employees shall only return to site when all clear signals are received from Plant Head or his nominated deputy.



G. Violence or Civil Unrest:

Everyone is asked to assist in making the facility a safe and peaceful place to carry on business as normally as possible. However, disturbances sometimes do occur, and everyone should be aware of action to be taken.

- 1) A threatening disturbance should be reported immediately to the Security/Department Heads/Supervisors or HR personnel and the following action taken:
 - Alert all employees in the area of the situation.
 - Lock all doors; secure all files, documents and equipment.
 - If necessary, cease operations and evacuate the building.
- 2) If you are the victim or are involved in any on-Facility violation of the law such as assault, robbery, theft, overt sexual behavior, etc. **DO NOT TAKE ANY UNNECESSARY CHANCES!** Notify the Security/Department Heads/Supervisors or HR personnel and provide the following information:
 - Nature of incident.
 - Facility location.
 - Description of person(s).
 - Description of property.
- 3) Avoid provoking or obstructing anyone participating in a disturbance or demonstration.
- 4) Assist the Security/Department Heads/Supervisors or HR personnel when they arrive by supplying them with all additional information and ask others to do the same.
- 5) The Security/Department Heads/Supervisors or HR personnel will assess the situation upon their arrival and conduct any search necessary or disperse demonstrators as necessary.
- 6) Assemble the ERT if necessary to consider “worst case” scenarios and business continuity.
- 7) ERT shall decide further course of action.

H. Extended Power Loss:

Being a Steel Manufacturing Industry possibility of power outage is very remote. However, we have provided emergency lights to all the salient points. In the event of extended power loss to a facility certain precautionary measure should be taken depending on the geographical location and environment of the facility, in plant the provision of DG is there:

Unnecessary electrical equipment and appliances should be turned off in the event that power restoration would surge causing damage to electronics and effecting sensitive equipment. Facilities with freezing temperatures should turn off and drain.

Restoration of heat and power:

Electronic equipment should be brought up to ambient temperatures before energizing to prevent condensate from forming on circuitry.

Fire and potable water piping should be checked for leaks from freeze damage after the heat has been restored to the facility and water turned back on.



I. Gas Leak:

In case of gas leakage from operations of RLNG skid or ammonia storage, cease all operations, immediately evacuate the area and notify your Department Heads/Shift In charge and contact the Security / Safety Dept.

These immediate actions may include the following:

- 1) Determine the scope of the emergency in order to ensure proper reaction.
- 2) Where the emergency is serious.
- 3) Cordoning off the area where required.
- 4) Preventing accidental ignition.
- 5) Reporting to the appropriate Department Heads/Supervisors on the situation, and requesting further instructions or assistance where needed, and Shutting off RLNG supply to the area (e.g., by closing isolation valves where the affected Area is downstream of the valves) When tackling a fire or a leak, the personnel shall approach the fire or the leak from the upwind position. Actions shall only be carried out by trained personnel.

J. Spread of contagious /infectious diseases/biological hazard/epidemic:

In case of spread of any contagious disease /infectious diseases/biological hazard/epidemic etc. the directions must be received from the nearby Public Health Centre or other appropriate government authorities.

To ensure the instructions are communicated and implemented a task force may be formed by the plant head or his designated nominee depending on the severity of the circumstances. The Public relations department will coordinate with the authorities to ensure authentic information and data is made available.

These immediate actions may include the following:

- 1) Determine the scope of the emergency to ensure proper reaction.
- 2) Where the emergency is serious.
- 3) Restricting entry to the area where required.
- 4) Identify group of people affected.
- 5) Formation of task force and educate them as needed.
- 6) Review and release guidelines periodically.
- 7) Review of the infrastructure needed; other special requirement needed review.
- 8) Reporting to the appropriate Department Heads/Supervisors on the situation.
- 9) Requesting further support from the local authorities, medical agencies etc.



Details of Hazardous Substances:

Following hazardous substances are used in JSW STEEL COATED PRODUCTS LTD., Bawal:

1) RLNG and GAS

RLNG is received at RLNG station at pressure of 20 KG/Sq. Cm. and pressure is further reduced to 06 kg, 2kg through pressure reducing systems located at required units / plants.

- 1.1) RLNG is supplied through RLNG station located towards North of the plant area away from plant with Fire Hydrant & Fire Extinguisher
- 1.2) RLNG is supplied by pipeline to the explosive proof furnaces at rate of about 2 Kg /hour. The operation of process annealing furnace is intrinsically safe and will shut down automatically in case of any deviation of the process parameters i.e., failure of electronic control system, stoppage of supply of RLNG & as per situation.
- 1.3) RLNG is also used in Continuous Galvanizing lines (CGL-1, CGL-2). The RLNG consumption is about 50mmbtu/Hour in the process of pickling, galvanizing & color coating line. The operation is intrinsically safe for operation and will shut down automatically in case of any deviation of the process parameters i.e., failure of electronic control system, stoppage of RLNG supply, stoppage of air supply etc.
- 1.4) Enough fire extinguishers are provided in all these areas. Fire points are clearly marked where fire-fighting equipment is located. Fire Hydrant systems for firefighting are provided in both the & RLNG storage area.

2) Hydrochloric Acid:

- 2.1) The total volume of Hydrochloric acid in storage or in process is quite considerable and it is of order of 75 KL. The concentration of fresh stock procured is 31 percent.
- 2.2) This chemical is stored in FRP tanks and suitable dike wall is constructed to contain the acid leakage if any.
- 2.3) This acid is mainly used in pickling section of the plant for descaling of coils & MS sheets.



3) Ammonia:

- 3.1) Ammonia is used for generation of hydrogen Gas (H₂) required in the process of Continuous Galvanizing Lines.
- 3.2) Ammonia requirement is to the tune of about 400 kg per shift. Based on this the storage of ammonia is about 5T tons in cylinder of 50 kg cylinder. These cylinders are stored in a well-ventilated shed adjacent to nitrogen generator. At any given time not more than 6 cylinders are connected to supply gas to ammonia cracker. The cracking of ammonia takes place in electrically heated furnace in which the incoming ammonia is heated by the outgoing hot gases from the cracker.
- 3.3) Nitrogen mixture is used for annealing furnace. presence in the proportion not exceeding four percent is not dangerous and therefore quite safe unless it directly comes in contact with oxygen. The cracking furnace electrical are all flameproof construction to avoid sparking and resulting danger of fire.
- 3.4) The ammonia storage and process is not expected to cause any major hazard within the plant. The leakage of ammonia is immediately detected due to its peculiar odor and corrective actions are immediately taken to curb the leakage.

4) HSD:

- 4.1) HSD is used for Diesel Generator Set, Forklift & Farana HSD storage is 100 KL.
- 4.2) The HSD fuels are classified as Class "C" petroleum's i.e., the flash point of these oils is more than 65 deg. Celsius, thus the possibility of self-ignition is very remote. The auto ignition temperature is more than 300 deg. Celsius for HSD. There is no possibility of such higher temperatures near storage areas. Hot work is not permitted in these areas.
- 4.3) This can catch fire only if there is a leakage very close to the source of fire or spark. Thus, it is not visualized to cause any major hazard due to its storage or usage. However sufficient fire protection equipment is installed in the storage area.

5) Paint barrels:

Paint and solvent barrels are stored in ventilated area and away from sources of heat. The process where paint is used is provided with flame proof arrangements. The fire could occur in case of heat source, spark etc. near these areas.



Properties of the Hazardous Substances & Material Safety Data with Precautions:

1) Recompressed Liquefied Natural Gas (RLNG):

RLNG is a mixture of hydrocarbons. It is in a gaseous state at normal temperature and atmospheric pressure. This is liquefied under pressure and transported under pressure as such. RLNG consists of Propane, Butane, propylene and butylene's etc. Some of the properties of RLNG which are having significance are given below-

- 1.1) At normal temperature and pressure RLNG is in vapor form & colorless.
- 1.2) RLNG is heavier than air and hence when it leaks it accumulates at the ground level or low-lying areas.
- 1.3) RLNG is liquefied by compressing it. Heat is generated in this phase change this gas can also be liquefied by refrigeration.
- 1.4) When pressure is relieved liquid RLNG changes to vapor pressure Propane is about three times that of Butane.
- 1.5) Butane has a boiling point of 0 deg. C. and that propane is - 42 deg. C.
- 1.6) RLNG liquid is lighter than water. One volume of RLNG will expand to about 250 volumes of vapor in free air.
- 1.7) RLNG liquid has low viscosity and can leak whereas other petroleum product has low viscosity, and hence it leaks through pump seals and glands.
- 1.8) RLNG has poor lubricating properties.
- 1.9) RLNG vapors in air or a lean mixture of RLNG and air can catch fire /flammable depending upon heat source.

RLNG MSDS.

- **Emergency Overview:** - Extremely flammable extremely cold liquid and gas under pressure. Contents under pressure keep at temperatures below 52°C. Appearance Colorless, Physical State Cryogenic Liquid and Odor Petroleum like.
- **Impacts:** - Exposure may cause central nervous system depression with nausea, headache, dizziness, vomiting, and in coordination. It is simple asphyxiant. May cause suffocation by displacing the oxygen in the air. exposure to oxygen-deficient atmosphere less than 18 % May cause skin, eye, and respiratory tract irritation and asphyxiate at high concentrations. May cause central nervous system depression. Eyes Contact with product may cause frostbite. Skin May cause frostbite. No history of chronic effects. Aggravated Medical Conditions Respiratory disorders.



➤ **Chemical Composition: -**

Chemical Name	Formula	Volume %
Methane	CH ₄	60 – 90
Nitrogen	N ₂	1-9
Propane	C ₃ H ₈	1-7
Ethane	C ₂ H ₆	3-11
N-Butane	C ₄ H ₁₀	1-3
Isobutane	C ₄ H ₁₀	1-3

First Aid treatment: -

- For inhalation, ingestion – Provide fresh air or oxygen and arrange for immediate help.
- For eye / skin contact - wash with plenty of water. If person is found nervous or disturbed or not
- Properly responding – take immediate medical help.

Fire Fighting and accidental measures: -

- In case of fire – first stop leakage by valve closing or stopping supply.
- Do not try to extinguish fire from pipe or equipment before stopping leak.
- Keep surroundings cool by water sprinkler or spray.
- Do not allow any heat source or ignition source near RLNG leakage or fire.
- Cordon the area and allow only authorized persons.

2) Properties of Hydrogen Gas:

This is a colorless gas with no odor but is a strong reducing agent. This is insoluble in water and is sensitive to static electricity. Practically non - toxic but may cause simple asphyxiation.

Physical Properties:

Specific gravity	0.09
Vapor density	0.069
Vapor pressure	Gas
Flash point	Flammable gas
Auto-ignition temp	550 deg. C
Flammable limits in air	4.1 to 74.2 % by volume
TLV	Simple asphyxiant



3) Hydrochloric Acid:

Physical properties of Hydrochloric Acid (HCL Acid):

Vapor density	1.268
Vapor pressure	4 kgcm ² gauge at 17.8 deg.
Molecular weight	36.47
Boiling point	- 84.8 deg. C.
Melting point	- 114.3 deg. C.
TLV	5 PPM
Solubility in water	Completely soluble in water

- i) This is a nonflammable material but can react with most of the metals producing gas that may explode violently. This is corrosive when accompanied with moisture.
- ii) Stored in cool clean and open area which should be well ventilated. It is stored in carboys or drums or in FRP tanks rubber lined tanks.
- iii) Leakage: Small spills can be neutralized with soda-ash or lime large spills should be flushed with plenty of water after neutralization.
- iv) Fire: Poisonous gases are produced in fire including Chlorine and chloride /explosion possibility

4) Ammonia:

- i) Ammonia can affect when it is breathed in, it irritates the lungs and causes coughing and shortness in breath. Severe exposure may cause buildup of fluids in lungs. Long term exposure to ammonia can cause chronic irritation of eyes, nose, throat & mouth.
- ii) Ammonia can burn but does not ignite readily due to auto ignition temp. > 600 deg. C.
- iii) **Leakage / Spillage of ammonia:**
 - Remove all sources of ignition nearby & also inform nearby departments employees.
 - Ventilate the affected area and raise alarm for cordoning the area and rectify the problem.
 - Person entering the affected area should make use of protective equipment including shoes, mask or respirator depending on severity.
 - Remove leaking cylinder to a safer area in open air, repair cylinder only when it is empty.
 - Small spills may be neutralized by using hydrochloric acid, which should be then drained into sewer along with enough water.



➤ **Remedial action:**

- For eye or skin exposure wash with plenty of water for at least 15 minutes after removing contaminated clothing.
- Seek medical help at the earliest, also take Material Safety Data Sheet for reference.
- For over exposure in breathing remove the person to a safe well-ventilated area, start rescue breathing and arrange to transfer the victim to a nearby hospital for treatment.

Physical Properties of Ammonia (NH₃):

Vapor density	0.60
Molecular weight	7.03
Specific gravity	0.62 at 15.5 deg.
Boiling point	- 33.4 deg.
Melting point	- 77.7 deg.
Auto ignition temp	651 deg.
Explosive range	15 - 28 %

- This is a colorless gas at normal temperatures It has a very strong pungent smell.
- This is a base compound and react with acids evolving heat. This forms explosive chemicals with certain other chemicals like mercury, chlorine, iodine, calcium etc.
- This chemical is fully soluble in water.
- This is a flammable gas & shall be kept away from combustible matter like oil etc.
- For extinguishing the fires use water spray or mist. Keep exposed cylinders' cool. Too much of heat during fire can cause explosion of the cylinders.

5) Paints and Solvents:

The paint and solvent contain about 45 to 55 % alcohol and thus dangerous. The physical and chemical properties are given below:

APPEARANCE:

Clear Colorless ODOUR:	Aromatic
SPECIFIC GRAVITY at Deg C:	0.972 - 0.980
VAPOR PRESSURE, mmHg AT 20 Deg C:	Less than 0.1,
SOLUBILITY IN WATER:	insoluble
FREEZING/MELTING POINT, Deg C:	typical < - 10
EVAPORATION RATE, n - Bu Acetate=1:	less than 0.1
BOILING POINT, Deg C:	160 - 230 °C
AUTO IGNITION TEMPERATURE;	370-480 °C
FLASH POINT, Deg C:	> 50 °C



i) **GENERAL PRECAUTIONS AND STORAGE HANDLING:**

- Avoid breathing of or contact with material.
- Only use in well-ventilated areas.
- Wash thoroughly after handling.
- Keep container closed.
- Handle and open containers with care.
- Store in a cool, well-ventilated place away from incompatible materials.
- DO NOT handle or store near an open flame, heat, or other sources of ignition.
- Protect material from direct sunlight.
- Material will accumulate static charges, which may cause an electrical spark (ignition source).
- Use proper bonding and or grounding procedures.
- Do not pressurize, cut, heat, or weld containers.
- Empty containers without commercial cleaning or reconditioning.

ii) **EXPOSURE CONTROLS AND PERSONAL PROTECTION EXPOSURE CONTROLS:**

The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be handling in a lab hood. Provide mechanical ventilation of confined spaces. See respiratory protection recommendations.

iii) **PERSONAL PROTECTION:**

For open system where contact is likely, wear safety glasses with side shields, long sleeves and chemical resistance gloves. Where contact may occur, wear safety glasses with side shields.

iv) **LEAKAGE/SPILLAGE OF PAINT:**

- Remove all sources of ignition nearby & also inform nearby departments employees.
- Ventilate the affected area & raise alarm for cordoning the area & rectify the problem.
- Person entering the affected area should make use of protective equipment including shoes, mask or respirator depending on severity.
- Remove leaking barrel to a safer area in open air, repair cylinder only when it is empty.
- Small spills may be collected and treated in ETP or collected for resale.

Emergency Response Plan



Emergency Control Teams:

There are two groups of teams who are trained for firefighting operations as well other emergency operations and their duties are interchanged every month.

Security Dept In charge: Mr. Sunil Chahar

Fire Fighting Team		First Aid Team	
1	Mukesh	1	Daulta Pratap
2	K.N. Jha	2	Tribhuvan ray
3	Kishan Kumar Chouhan	3	Asit Loeiya
4	Harish Kumar	4	Abhinandan
5	Param Chauhan	5	Saurabh Raghav
6	Vikram Singh	6	Arya
7	Dheer Singh	7	Anna Sharma
8	Rajkumar	8	Neeraj Kumari
9	Amanjeet Kumar	9	M. Kamesh
10	Sahil Kumar	10	Preetam
11	Pawan	11	Vikram Singh
12	Jaswant	12	Naresh Kumar
13	Aryaveer Singh	13	Dheer Singh
14	Harish	14	Kamal Sharma
15	Surender	15	Joginder Singh
16	Subham Lambha	17	Devendra singh
17	Kamal	18	Soma bhattacharyya
18	Virendra	19	Pragyashri jain
19	Charan Singh	20	Param singh chauhan
20	Kalpana	21	Ritu Dhillon
21	Manoj		
22	Jage Ram		
23	Shaligram		
28	Narender		
29	Manmohan		
30	Prem Sharma		
31	Akhilesh Mishra		
1.		1.	

The shop floor employees available in different operational shifts shall be part of emergency teams as per situation. The section in charges, unit in charges and shift in charges shall decide the resources at time of emergency.



List of Emergency Telephone Numbers:

Police		Fire Brigade	
Bawal	01274-242328	Bawal, Fire Station	101, 012742227777
Police		Hospitals	
Control Room	100,01274-264285	Civil Hospital	102,01274-254743



Telephone Numbers of Key Plant Persons:

Name	Designation	Telephone Numbers	
		Intercom	Mobile
Mr. Mukti Nath Rai	Plant Head	1503	9831410428
Mr. Sunil Jain	Technical Head	1511	8788408580
Mr. Pramod Soni	Mechanical Head	1530	9970390598
Mr. Gaurav Yadav	Electrical Head	1524	9996117932
Mr. Mohit Verma	CRM-Operation Head	1516	9860998643
Mr. M. Kirubaharan	CPD-Operation Head	1520	9996117954
Mr. Ajay Singh	Project & Civil Head	1534	8222858621
Mr. Harish Babu Sharma	Quality Head	-	9996546473
Mr. Anil Kumar	Store Head	1531	8130399020
Mr. Bhagwan Prasad	HR & Admin Head	1537	9992900686
Mr. Vishal L.Wagh	EHS Head	1546	919930380101
Mr. Sunil Chahar	Security Head	1543	9728500691



List of key personnel of the Organization and Responsibilities assigned:

Name	Designation	Responsibility
Mr. Mukti Nath Rai	Plant Head	Advisory Team Leader
1. Mr. Mohit Verma 2. Mr. Pramod Soni 3. Mr. M. Kirubaharan 4. Mr. Gaurav Yadav 5. Mr. Ajay Singh 6. Mr. Harish Babu Sharma	Department Head	Emergency Leaders
1. Mr. PK Parmar 2. Mr. Mohit Jain 3. Mr. Ghanshyam Sharma 4. Mr. Praveen Rawal 5. Mr. Krishan Kumar 6. Mr. Trilok Chand Sharma	Section Head	Incident Controllers
OHC	Occupational Health Centre	Medical Team
Mr. PS Chauhan	Taxation Head/CSR	Public Relations
Mr. Sunil Chahar	Security Officer	Security
Mr. Vishal L.Wagh	EHS Head	EHS
Mr. Bhagwan Prasad	HR& Admin Head	HR dept.
Mr. Anil Kumar	Store Head	Stores Dept.



Emergency Drills:

- ❖ Department and plant level mock drills are to be conducted at least 2 times a year.
- ❖ Emergency drills shall cover all but not limited to different types as follows:
 - Evacuation
 - Firefighting
 - First aid and casualty handling
 - Chemical spills/leakage or leakage of gases etc.
 - Environment affecting substance / material and its control and disposal.
- ❖ All plants have many big gates as well as small gates & openings. All persons except visitors, guests etc., are accustomed with their working areas. However, during mock drills emphasis is given on escape routes, open spaces, openings etc.
- ❖ “**Assembly point**” are clearly marked and made clear to all personnel. Selected and assigned personnel shall supervise the evacuation, including headcount.
- ❖ An emergency plan is displayed at Main Gate
- ❖ During tabletop discussion it is must to decide recovery routes, closest exits, location of fire protection equipment, eye wash and shower station, spill control kit as and wherever applicable.
- ❖ All employees should follow these instructions and be familiar with OEP.

Emergency Equipment Monitoring & Inspection:

The Safety Department ensures that appropriate emergency equipment is provided, deployed and easily accessible in strategic areas of the company premises.

- Safety & emergency equipment shall include following mainly.
- Fire hydrant system with 27 outlets,
- Fire water pump house with diesel pump /electric pumps sets.
- Fire Extinguishers around 201
- Fire Hoses – 54 Nos.
- Emergency Lights.
- Spill kits / spill collection arrangements – trays, drums, cloths etc.
- OHC/First Aid Kit, Ambulance, Showers.

HSE Manager and/or its assigned staff is periodically checking and monitoring all emergency equipment using the “Emergency Equipment Monitoring Sheet”. Frequency of inspection and maintenance is monthly once.

All the emergency equipment is maintained in good operational condition and easily accessible in the event of an incident and other emergency.



Review & updating the plan.

The emergency plan shall be updated at regular intervals at least once in every year or whenever there is major change. The lessons learnt from mock drills and inadequacies experienced are to be incorporated in the plan at the time of its updating and in developing standard operating procedures. Also consider the changes in the resource inventory of plant. Any changes done will be communicated to all employees transferred/hired.

-X- X- THE END - X- X-



2025

Heat Stress Assessment Report

**M/s JSW Steel Coated
Products Ltd.**

BAWAL, HARYANA

**Prepared By
Life First Solutions, Patiala (Pb.)**

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DOCUMENT HISTORY

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<i>The preparation of this report has been undertaken within the terms of the Brief using all reasonable skills and care. The report has been prepared in accordance with the relevant procedures for review by the appropriate designated authorities. We accept no responsibility for data provided by other bodies and no legal liability arising from the use by other people of data or opinions contained in this report.</i>				Distribution ☒ Official ☐ Public ☒ Confidential

Prepared by	Reviewed by	Approved by
Deepak Sharma	Balkar Singh	Vishal Sharma

Life First Solutions, Patiala (Pb.)	Life First Solutions, Patiala (Pb.)	Life First Solutions, Patiala (Pb.)
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ABBREVIATIONS

ACGIH	American Conference of Governmental Industrial Hygienists
WBGT	Wet Bulb Globe Temperature
DBT	Dry Bulb Temperature
WBT	Wet Bulb Temperature
GT	Globe Temperature
TLV	Threshold Limit Value (exposure guideline from ACGIH)
PMV	Predicted Mean Vote (thermal comfort index per ASHRAE 55)
FR Clothing	Flame-Resistant Clothing
RH	Relative Humidity
ASHRAE	American Society of Heating, Refrigerating and Air-Conditioning Engineers
ACGIH	American Conference of Governmental Industrial Hygienists

1.0 INTRODUCTION

M/s JSW Steel Coated Products Ltd, Bawal Works, entrusted **Life First Solutions, Patiala (Pb.)**, with the task of conducting a comprehensive **Heat Stress Assessment Study** for their critical process and utility areas. Accordingly, a qualified team of Industrial Hygiene and EHS professionals from **Life First Solutions** visited the facility on **15-April-2025** to execute the assessment across ten high-priority locations identified by the site safety and operations teams.

The objective of this Industrial Hygiene (IH) assessment was to evaluate thermal stress risks associated with indoor and outdoor work environments, determine compliance against occupational exposure thresholds, and recommend feasible engineering, administrative, and PPE-based controls. The study aligns with globally accepted occupational health standards, namely ACGIH and ASHRAE guidelines.

Life First Solutions, Patiala (Pb.) conducted this assessment for **M/s JSW Steel Coated Products Ltd, Bawal Works** on **15-April-2025**. We appreciate the opportunity extended to us by M/s JSW Steel Coated Products Ltd, Bawal Works to conduct this vital evaluation. We acknowledge their initiative-taking commitment to workforce safety and environmental controls and are pleased to support their ongoing excellence in industrial hygiene practices.

1.1 Brief Description about M/s JSW Steel Coated Products Ltd, Bawal Works

M/s JSW Steel Coated Products Ltd, Bawal Works, is a leading facility under the JSW Group specializing in the production of high-quality coated steel products catering to a wide spectrum of industrial applications including automotive, construction, and infrastructure. The Bawal Works facility is known for its commitment to high-performance standards, worker safety, and sustainable operational practices. The company consistently invests in initiative-taking risk management, environmental safeguards, and employee well-being initiatives aligned with global benchmarks.

1.2 Scope of the study

This report covers the following areas:

1. CGL-2 Zinc Pot Area
2. CGL-2 Furnace Area – Zone 1 & 3
3. CGL-1 Zinc Pot
4. CGL-1 Furnace Area
5. Cold Roll Mill (CRM)
6. STP Area (Outdoor)
7. Boiler Area
8. Scrap Yard (Outdoor with shed)
9. Nitrogen Plant

1.3 Objectives of Heat Stress Assessment

The objective of this Heat Stress Assessment Study is to systematically evaluate workplace thermal conditions at M/s JSW Steel Coated Products Ltd, Bawal Works, and identify areas where employees may be exposed to unsafe levels of heat stress. The goal is to:

-
- Assess environmental heat stress levels using recognized international standards (ACGIH and ASHRAE)
 - Quantify WBGT values based on dry bulb temperature, wet bulb temperature, globe temperature, and air velocity.
 - Determine if existing environmental and work conditions exceed permissible exposure thresholds for moderate work.
 - Recommend engineering, administrative, and PPE controls to mitigate risks.
 - Enable the organization to develop preventive strategies to reduce heat-related illness, ensure compliance, and support long-term worker health and productivity.

1.4 Methodology

Data Collection

- Environmental data collected for each location: Dry Bulb Temperature (DBT), Wet Bulb Temperature (WBT), estimated Globe Temperature (GT), air velocity, and humidity.
- Worker profile: Regular, moderately active, wearing mixed-fabric protective clothing.

WBGT Calculation

WBGT calculated using the ACGIH formula:

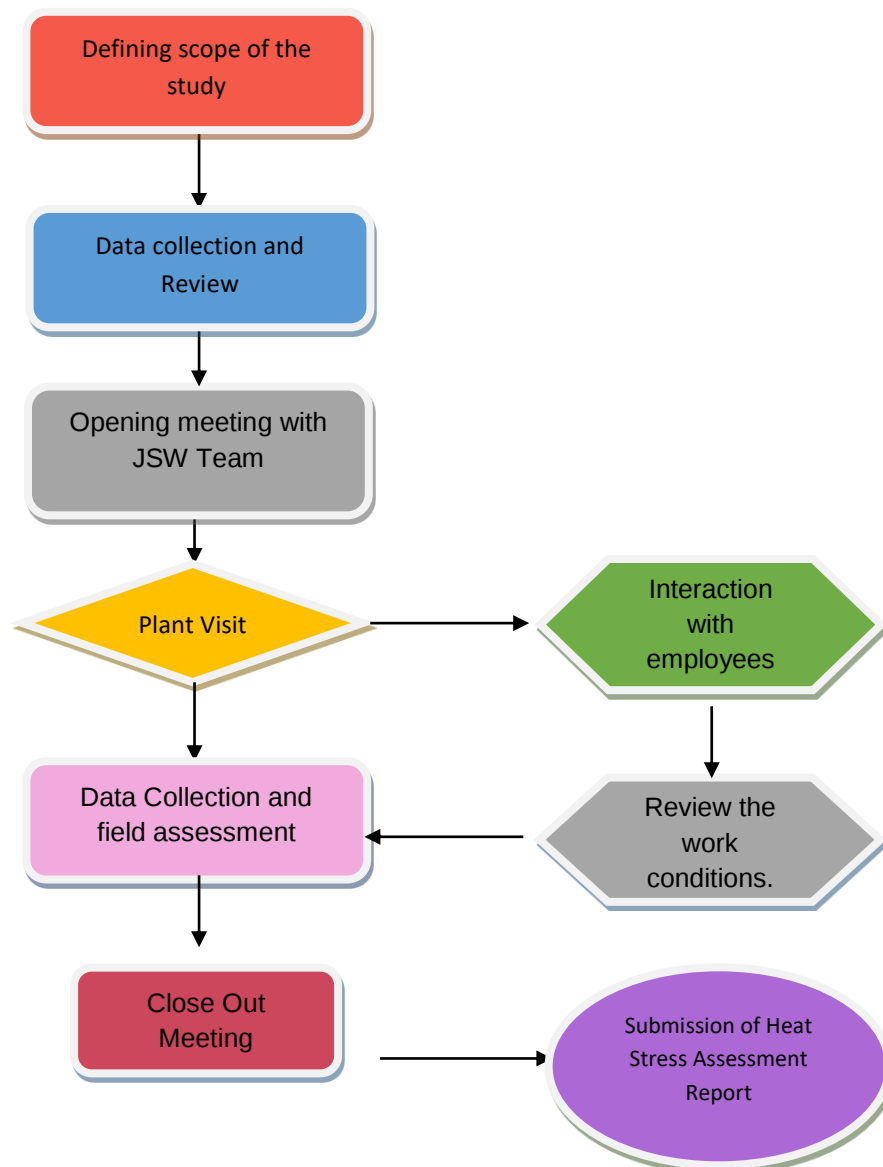
- **Indoor with radiant heat:** $WBGT = (0.7 \times WBT) + (0.2 \times GT) + (0.1 \times DBT)$
- **Outdoor with solar load:** $WBGT = (0.7 \times WBT) + (0.2 \times GT) + (0.1 \times DBT)$

Standards Referenced

- **ACGIH TLVs® (2024)** for Heat Stress
- **ASHRAE 55:2020** for Thermal Comfort

Risk Classification

Each area evaluated against ACGIH TLVs for acclimatized workers performing moderate work. Comfort benchmarked using PMV, dry bulb, and globe temperature limits from ASHRAE 55.



The Assessment team carried out detailed site study and held interactions with various

departments viz. Safety, Production, Maintenance, HR, etc.

1.5 Standards Adopted

This study follows internationally recognized standards and industry guidelines to ensure the accuracy and reliability of the assessment results. References used:

- **ACGIH TLVs® and BEIs® (2024 Edition)** – "Threshold Limit Values for Chemical Substances and Physical Agents & Biological Exposure Indices," American Conference of Governmental Industrial Hygienists.
- **ASHRAE Standard 55:2020** – "Thermal Environmental Conditions for Human Occupancy," American Society of Heating, Refrigerating and Air-Conditioning Engineers.
- **NIOSH Criteria for a Recommended Standard (2016)** – Occupational Exposure to Heat and Hot Environments.
- **ISO 7243** – Ergonomics of the thermal environment – Assessment of heat stress using the WBGT (wet bulb globe temperature) index.
- **NBC 2016** – National Building Code of India (where applicable to thermal comfort and ventilation requirements).

1.6 Results Summary

Area	WBGT (°C)	ACGIH Status (Moderate Work)	ASHRAE Comfort	Risk Level
CGL-2 Zinc Pot	31.5	Exceeds by 2.5°C	Not compliant	High
CGL-2 Furnace Zone 1 & 3	33.5	Exceeds by 4.5°C	Not compliant	Severe
CGL-1 Zinc Pot	30.0	Slight exceedance	Not compliant	Moderate
CGL-1 Furnace Floor	32.7	Exceeds by 3.7°C	Not compliant	High
Cold Roll Mill	28.2	Near TLV	Not compliant	Moderate

STP Area	29.8	Slight exceedance	Not compliant	Moderate
CGL-1 Furnace Floor	36.4	Exceeds by 7.4°C	Not compliant	Severe
Boiler Area	33.9	Exceeds by 4.9°C	Not compliant	Severe
Scrap Yard	29.8	Slight exceedance	Not compliant	Moderate
Nitrogen Plant	32.1	Exceeds by 3.1°C	Not compliant	High

2.0 Key Observations

- All indoor furnace zones consistently show WBGT above 32°C due to high radiant load and poor air movement.
- Outdoor areas (STP and Scrap Yard) exceed thresholds during daytime exposure even with moderate air movement.
- CRM area benefited from high air movement, reducing WBGT slightly.

3.0 Recommendations

7.1 Engineering Controls

- **Spot ventilation** and **exhaust systems** in furnace and boiler areas
- **Radiant heat shields** and **thermal insulation** on hot surfaces
- **Air-conditioned or mist-cooled rest shelters** for workers

7.2 Administrative Controls

- Implement **work-rest cycles** (e.g., 15:45 min for moderate work)
- Ensure **fluid intake every 15–20 min**, especially with ORS.
- Rotate high-exposure tasks among trained personnel.
- Provide **heat stress training and signage**.

7.3 Personal Protective Equipment (PPE)

-
- Introduce **cooling vests, neck wraps, or PCM garments.**
 - Use **moisture-wicking, FR-rated clothing.**
 - Provide **lightweight headgear with cooling pads.**

7.4 Health Surveillance

- Daily **pre-shift health checks** (pulse, hydration)
- Track **heat stress-related incidents** and near-misses.

ANNEXURE Assessment Reports

Heat Stress Assessment Report

Area: CGL-2 Zinc Pot Area

Date of Assessment: 15-04-2025

1. Objective

To evaluate occupational heat stress and thermal comfort risk in the **CGL-2 Zinc Pot area**, based on measured environmental parameters and worker exposure profile.

2. Site and Environmental Conditions

Parameter	Value
Air Movement	0.1 m/s (minimal)
Worker Type	Regular
Workload	Moderate

Clothing	Mixed fabric coverall
Environment	Indoor
Dry Bulb Temp (DBT)	40°C
Wet Bulb Temp (WBT)	25°C
Globe Temp (GT)	~50°C
Relative Humidity (est.)	~28% (based on DBT/WBT)

3. ACGIH WBGT-Based Heat Stress Evaluation

3.1 WBGT Calculation (Indoor with Radiant Heat)

$$\text{WBGT} = (0.7 \times 25) + (0.2 \times 50) + (0.1 \times 40) = 17.5 + 10 + 4 = 31.5^\circ\text{C}$$

3.2 ACGIH TLVs® Comparison Table

Workload	Acclimatized TLV (°C)	Unacclimatized TLV (°C)	Measured WBGT	Status
Light	30.0	28.0		
Moderate	29.0	26.0	31.5°C	✗ Exceeds by 2.5–5.5°C
Heavy	27.5	24.0		

4. ASHRAE 55 Thermal Comfort Evaluation

Parameter	ASHRAE Acceptable Range	Measured/Estimated	Compliant?
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Dry Bulb Temp	20–27°C	40°C	×
Globe Temperature	≤35°C	~50°C	×
Relative Humidity	≤60%	~28%	✓
PMV (thermal load)	–0.5 to +0.5	+2.5 to +3	×

Interpretation: Environment fails to meet ASHRAE’s thermal comfort criteria due to **high DBT and radiant load**, causing **severe discomfort**.

5. Risk Classification Summary

Standard	Metric	Threshold	Measured	Risk Level
ACGIH	WBGT (°C)	29.0°C	31.5°C	▲ Heat Stress Hazard
ASHRAE 55	Thermal Comfort	PMV ±0.5	PMV ~+3	× Discomfort

6. Recommendations

Engineering Controls

- **Air movement systems** (portable blowers) around zinc pot
- **Heat shield curtains** around operator workstations.
- **Thermal insulation** of pot exterior surfaces

□ Administrative Controls

- Enforce **15:45 min work-rest cycles**.
- Hydration protocol: 200–300 ml every 20 min
- Toolbox talk: **Heat stress symptoms & first aid**.

🛡️ Personal Cooling & PPE

- **Cooling vests / collars** for zinc pot operators
- Encourage breathable, **FR workwear** with vent zones.

□ Health Monitoring

- **Pre-shift vitals & hydration checks**
 - Monitor workers for signs of **fatigue, heat cramps, confusion**.
 - Ensure **first responder access** for thermal emergencies.
-

7. Conclusion

The **CGL-2 Zinc Pot Area** registers a WBGT of **31.5°C**, which **exceeds ACGIH limits for moderate work**. It also violates **ASHRAE thermal comfort thresholds**. Immediate engineering and administrative controls are essential to protect worker health and safety.

Heat Stress Assessment Report

Area: CGL-2 Furnace Area – Zone 1 & 3

Date of Assessment: 15-04-2025

1. Objective

Assess occupational heat stress risk for personnel working in the **CGL-2 Furnace Area – Zone 1 & 3**, using:

- **ACGIH WBGT guidelines** for health-based heat exposure
 - **ASHRAE 55:2020** for indoor thermal comfort analysis
-

2. Site and Environmental Conditions

Parameter	Value
Air Movement	0.1 m/s (minimal)
Worker Type	Regular
Workload	Moderate
Clothing	Mixed fabric coverall
Environment	Indoor
Dry Bulb Temp (DBT)	42°C
Wet Bulb Temp (WBT)	27°C
Globe Temp (GT)	~52°C
Relative Humidity (est.)	~32% (from DBT/WBT)

3. ACGIH WBGT-Based Heat Stress Evaluation

3.1 WBGT Calculation (Indoor with Radiant Load)

$$\text{WBGT} = (0.7 \times 27) + (0.2 \times 52) + (0.1 \times 42) = 18.9 + 10.4 + 4.2 = 33.5^\circ\text{C}$$

3.2 ACGIH TLVs® Comparison Table

Workload	Acclimatized TLV (°C)	Unacclimatized TLV (°C)	Measured WBGT	Status
Light	30.0	28.0		✗ Exceeds for both

Moderate	29.0	26.0	33.5°C	✗ Exceeds by 4.5–7.5°C
Heavy	27.5	24.0		

4. ASHRAE 55 Thermal Comfort Evaluation

Parameter	ASHRAE Acceptable Range	Measured/Estimated	Compliant?
Dry Bulb Temp	20–27°C	42°C	✗
Globe Temperature	≤35°C	~52°C	✗
Relative Humidity	≤60%	~32%	✓
PMV (thermal load)	–0.5 to +0.5	~+3	✗

Interpretation: The zone exceeds ASHRAE 55 comfort limits. High radiant and ambient heat contributes to significant thermal discomfort and physiological load.

5. Risk Classification Summary

Standard	Metric	Threshold	Measured	Risk Level
ACGIH	WBGT (°C)	29.0°C	33.5°C	▲ Severe Heat Stress
ASHRAE 55	Thermal Comfort	PMV ±0.5	PMV ~+3	✗ Extreme Discomfort

6. Recommendations

Engineering Controls

- Add **localized exhaust ventilation (LEV)** around furnace face.
- Provide **portable air movers** at working zones.
- Use **heat-deflective barriers** to isolate radiant exposure.

Administrative Controls

- Introduce **structured work-rest cycles (15:45)**
- Encourage hydration every 15–20 min with ORS.
- Train workers on **heat illness first response**

PPE and Cooling

- Issue **cooling gear** (vests, collars) to furnace operators.
- Promote use of **lightweight, breathable flame-resistant clothing**

Health Surveillance

- Conduct **pre-shift screenings** and post-shift feedback.
 - Maintain log of **heat-related symptoms** and first aid usage
 - Train supervisors for **early heat stress recognition**
-

7. Conclusion

The **CGL-2 Furnace Area – Zone 1 & 3** registers a **WBGT of 33.5°C**, placing it in the **extreme risk category** for moderate workload under ACGIH standards. ASHRAE thermal comfort limits are also exceeded.



HEAT STRESS ASSESSMENT

JSW Steel Coated Products Ltd. BAWAL Works

Heat Stress Assessment Report

Area: CGL-1 Zinc Pot

Date of Assessment: 15-04-2025

1. Objective

Evaluate heat stress and thermal comfort risks for workers in the **CGL-1 Zinc Pot area**, based on environmental measurements and workload using:

- **ACGIH WBGT guidelines** for occupational heat exposure
 - **ASHRAE 55:2020** standard for thermal comfort in indoor industrial environments
-

2. Site and Environmental Parameters

Parameter	Value
Air Movement	0.1 m/s (very low)
Worker Type	Regular
Workload	Moderate
Clothing	Mixed fabric
Environment	Indoor
Dry Bulb Temp (DBT)	36°C
Wet Bulb Temp (WBT)	24°C
Globe Temp (GT)	~48°C
Relative Humidity (est.)	~34% (from DBT/WBT)

3. ACGIH WBGT-Based Heat Stress Evaluation

3.1 WBGT Calculation (Indoor with Radiant Load)

$$\text{WBGT} = (0.7 \times 24) + (0.2 \times 48) + (0.1 \times 36) = 16.8 + 9.6 + 3.6 = 30.0^\circ\text{C}$$

3.2 ACGIH TLVs® Comparison Table

Workload	Acclimatized TLV (°C)	Unacclimatized TLV (°C)	Measured WBGT	Status
Light	30.0	28.0		
Moderate	29.0	26.0	30.0°C	✗ Exceeds by 1.0–4.0°C
Heavy	27.5	24.0		

4. ASHRAE 55 Thermal Comfort Assessment

Parameter	ASHRAE Acceptable Range	Measured / Estimated	Compliant?
Dry Bulb Temp	20–27°C	36°C	✗
Globe Temperature	≤35°C	~48°C	✗
Relative Humidity	≤60%	~34%	✓
Air Movement	≥0.05 m/s	0.1 m/s	✓
PMV	–0.5 to +0.5	~+2.8	✗

Interpretation:

Environment fails to meet ASHRAE 55 thermal comfort due to elevated dry and globe temperatures and radiant heat exposure.

5. Risk Classification Summary

Standard	Metric	Threshold	Measured	Risk Level
ACGIH	WBGT (°C)	29.0°C	30.0°C	⚠ Moderate Heat Stress
ASHRAE 55	PMV / GT	PMV ±0.5 / GT ≤35°C	PMV ~+2.8	✗ Severe Discomfort

6. Recommendations

🔧 Engineering Controls

- **Add radiant heat shields** between zinc pot and operators.
- Consider **insulating exposed surfaces** to reduce ambient heat.
- Install **air curtains or fans** to increase convective cooling.

☐ Administrative Controls

- Use **structured work-rest cycles** (e.g., 15:45)
- Ensure **regular fluid intake (ORS / water)** every 20 minutes.
- Train workers to **identify early signs** of heat stress.

🛡 PPE & Personal Cooling

- Use **cooling wraps or vests** during high exposure tasks.
- Provide **moisture-wicking flame-resistant clothing**.

☐ Health Monitoring

- Monitor for **symptoms of dehydration or exhaustion**.
- Log **daily observations or complaints**.
- Maintain **first-aid support and emergency cooling** provisions.

7. Conclusion

The **CGL-1 Zinc Pot area** exhibits **WBGT of 30.0°C**, exceeding ACGIH TLVs for moderate work. Though within light workload limits, thermal comfort is poor due to high radiant exposure. Controls are necessary to mitigate cumulative stress on workers and prevent heat-related illness.

Heat Stress Assessment Report

Area: CGL-1 Furnace Area

Date of Assessment: 15-04-2025

1. Objective

Assess heat stress exposure and thermal comfort levels in the **CGL-1 Furnace Area – Floor**, using:

- **ACGIH WBGT methodology** for occupational exposure assessment
 - **ASHRAE 55:2020** standard for thermal comfort in high-radiant indoor areas
-

2. Environmental & Operational Parameters

Parameter	Value
Air Movement	< 0.1 m/s
Worker Type	Regular
Workload	Moderate
Clothing	Mixed fabric
Environment	Indoor
Dry Bulb Temp (DBT)	43°C
Wet Bulb Temp (WBT)	31°C
Globe Temp (GT)	~52°C (radiant furnace)
Relative Humidity (est.)	~32%

3. ACGIH WBGT-Based Heat Stress Evaluation

3.1 WBGT Calculation (Indoor with Radiant Load)

$$WBGT = (0.7 \times 31) + (0.2 \times 52) + (0.1 \times 43) = 21.7 + 10.4 + 4.3 = 36.4^{\circ}\text{C}$$

3.2 ACGIH TLVs® Comparison Table

Workload	Acclimatized (°C)	TLV Unacclimatized (°C)	TLV Measured WBGT	Status
Light	30.0	28.0		✗ Exceeds for both
Moderate	29.0	26.0	36.4°C	✗ Exceeds by 7.4–10.4°C
Heavy	27.5	24.0		✗ Severe risk

Reference: ACGIH (2024), *Heat Stress TLVs® – Indoor with Radiant Load*

4. ASHRAE 55 Thermal Comfort Evaluation

Parameter	ASHRAE Acceptable Range Measured / Estimated Compliant?		
Dry Bulb Temperature	20–27°C	43°C	✗
Globe Temperature	≤35°C	~52°C	✗
Relative Humidity	≤60%	~32%	✓
Air Velocity	≥0.05 m/s	< 0.1 m/s	✓
PMV / Thermal Sensation	–0.5 to +0.5	PMV ~+3	✗

Interpretation: Thermal comfort is significantly compromised due to high dry temperature, lack of air circulation, and radiant heat.

5. Risk Classification Summary

Standard	Metric	Threshold	Measured Risk Level
ACGIH	WBGT (°C)	29.0°C	36.4°C ▲ Extreme Heat Stress
ASHRAE 55	PMV / GT	PMV ±0.5 / GT ≤35°C	PMV ~+3 ✕ Severe Discomfort

6. Recommendations

Engineering Controls

- Install radiant barriers or shielding panels.
- Add spot ventilation or localized exhaust fans.
- Create cool-down booths or air-blown rest areas.

Administrative Controls

- Apply work-rest cycles: 15 min work / 45 min rest.
- Enforce hydration every 15–20 min with ORS.
- Rotate workers during peak temperature hours.

PPE & Cooling Gear

- Supply cooling vests, neck wraps.
- Use breathable, FR-certified protective clothing.

Health Surveillance

- Conduct pre-shift wellness checks.
- Maintain incident logbook for heat stress symptoms.
- Prepare for on-site emergency support.

7. Conclusion

The **CGL-1 Furnace Area** is an **extreme heat stress zone**, with a WBGT of **36.4°C—well beyond acceptable limits** for moderate work. It also violates ASHRAE thermal comfort parameters. **Engineering and administrative controls are essential** to ensure safe working conditions.

Area: Cold Roll Mill (CRM)

Date of Assessment: 15-04-2025

1. Objective

Evaluate worker heat stress risk and indoor thermal comfort in the **Cold Rolling Mill (CRM)** using:

- The **ACGIH WBGT methodology** for occupational exposure
 - **ASHRAE 55:2020** for evaluating comfort in ventilated indoor industrial environments.
-

2. Environmental & Operational Parameters

Parameter	Value
Air Movement	0.6 m/s (moderate)
Worker Type	Regular
Workload	Moderate
Clothing	Mixed fabric
Environment	Indoor
Dry Bulb Temp (DBT)	37°C
Wet Bulb Temp (WBT)	23°C
Globe Temp (GT)	~42°C
Relative Humidity (est.)	~28%

3. ACGIH WBGT-Based Heat Stress Evaluation

3.1 WBGT Calculation (Indoor, Radiant Heat + Airflow >0.3 m/s)

$$\text{WBGT} = (0.7 \times 23) + (0.2 \times 42) + (0.1 \times 37) = 16.1 + 8.4 + 3.7 = 28.2^\circ\text{C}$$

3.2 ACGIH TLVs® Comparison Table

Workload	Acclimatized TLV (°C)	Unacclimatized TLV (°C)	Measured WBGT	Status
Light	30.0	28.0		✓ / borderline for unacclimatized
Moderate	29.0	26.0	28.2°C	⚠ Slightly elevated
Heavy	27.5	24.0		

4. ASHRAE 55 Thermal Comfort Evaluation

Parameter	ASHRAE Acceptable Range	Measured / Estimated	Compliant?
Dry Bulb Temperature	20–27°C	37°C	✗
Globe Temperature	≤35°C	~42°C	✗
Relative Humidity	≤60%	~28%	✓
Air Velocity	0.05–1.0 m/s	0.6 m/s	✓
PMV / PPD Index	–0.5 to +0.5 / ≤10%	PMV ~+2	✗

Interpretation:

While **ventilation is good**, the thermal load still causes **mild to moderate discomfort**. Conditions are on the **borderline of thermal acceptability**.

5. Risk Classification Summary

Standard	Metric	Threshold	Measured	Risk Level
ACGIH	WBGT (°C)	29.0°C	28.2°C	⚠ Marginal (Moderate Work)
ASHRAE 55	PMV / GT	PMV ±0.5 / GT ≤35°C	PMV ~+2	✗ Thermal Discomfort

6. Recommendations

🔧 Engineering Controls

- Maintain **consistent air velocity** ≥ 0.5 m/s across operator zones.
- Install **spot cooling or fans** at high-use workstations.
- **Shield hot surfaces or radiant equipment** where applicable.

☐ Administrative Controls

- **Encourage hydration** every 20–30 minutes.
- Rotate personnel to **avoid long exposure near heated sections**.
- Brief workers on **recognition of heat stress symptoms**

🛡 Personal Cooling & PPE

- Provide **cooling neck wraps / caps** during peak work hours.
- Recommend use of **moisture-wicking, breathable FR garments**

☐ Medical Surveillance

- Observe signs of fatigue during **afternoon peak periods**

-
- Perform **routine checks** on older or sensitive workers.
 - Prepare **ice packs and hydration kits** in nearby rest zones.
-

7. Conclusion

The **Cold Roll Mill (CRM)** area shows a **WBGT of 28.2°C**, which is **close to the TLV for moderate work**. Air movement reduces physiological stress, but constant monitoring and light controls are necessary to prevent heat strain during long shifts.

Heat Stress Assessment Report

Area: STP (Sewage Treatment Plant) Area

Date of Assessment: 15-04-2025

1. Objective

Assess heat stress and thermal comfort exposure for workers in the **outdoor STP area (without shed)**, using:

- **ACGIH WBGT methodology** for occupational health protection
 - **ASHRAE 55:2020 standard** for evaluating ambient thermal comfort outdoors.
-

2. Environmental & Operational Parameters

Parameter	Value
Air Movement	0.2 m/s (light breeze)
Worker Type	Regular
Workload	Moderate
Clothing	Mixed fabric
Environment	Outdoor, No Shed
Dry Bulb Temp (DBT)	36°C
Wet Bulb Temp (WBT)	24°C

Globe Temp (GT)	~47°C (solar gain + concrete reflection)
Relative Humidity (est.)	~40%

3. ACGIH WBGT-Based Heat Stress Evaluation

3.1 WBGT Calculation (Outdoor with Solar Load)

$$WBGT = (0.7 \times WBT) + (0.2 \times GT) + (0.1 \times DBT) = (0.7 \times 24) + (0.2 \times 47) + (0.1 \times 36) = 16.8 + 9.4 + 3.6 = 29.8^\circ\text{C}$$

3.2 ACGIH TLVs® Comparison Table

Workload	Acclimatized TLV (°C)	Unacclimatized TLV (°C)	Measured WBGT	Status
Light	30.0	28.0		
Moderate	29.0	26.0	29.8°C	✗ Exceeds by 0.8–3.8°C
Heavy	27.5	24.0		

Reference: ACGIH (2024). *Heat Stress TLVs® – Outdoor with Solar Load*

4. ASHRAE 55 Thermal Comfort Evaluation (Outdoor)

Parameter	ASHRAE Acceptable Range	Measured / Estimated	Compliant?
Dry Bulb Temp	20–32°C (outdoor limit)	36°C	✗
Globe Temperature	≤35°C	~47°C	✗
Relative Humidity	≤60%	~40%	✓

Air Movement	≥0.1 m/s (outdoor min.)	0.2 m/s	✓
PMV / Discomfort	-0.5 to +0.5	PMV ~+2.8	✗

Interpretation:

Even with moderate breeze, the **outdoor unsheltered STP area exceeds ASHRAE comfort standards** due to radiant heat and lack of shading.

5. Risk Classification Summary

Standard	Metric	Threshold	Measured	Risk Level
ACGIH	WBGT (°C)	29.0°C	29.8°C	⚠ Slight Heat Stress
ASHRAE 55	Thermal Comfort	PMV ±0.5	PMV ~+2.8	✗ Outdoor Discomfort

6. Recommendations

🔧 Engineering & Environmental Controls

- Provide **temporary shade structures or canopies**.
- Install **mist fans or low-pressure water forgers** (if safe)
- Optimize job scheduling to **avoid mid-day sun exposure**.

📋 Administrative Controls

- Adjust **shift timing to cooler morning hours**.
- **Hydration every 15–20 minutes**, especially for long-duty operators
- Incorporate **buddy monitoring system** for early stress signs.

🛡 PPE & Cooling Support

-
- Offer **light-coloured, UV-resistant work clothing**.
 - Encourage **cooling neck bands / towels** during peak hours.

□ Health Monitoring

- Regular **health checks during peak sunlight periods**
 - Maintain **on-site response readiness** for heat cramps, fatigue.
 - Record and act on **any worker complaints**.
-

7. Conclusion

The **STP Area (Outdoor, No Shed)** poses **moderate heat stress risk**, with WBGT at **29.8°C**, exceeding ACGIH TLV for moderate work. ASHRAE thermal comfort standards are not achieved. **Protective measures and shaded conditions are critical**, particularly during midday operations.

Heat Stress Assessment Report

Area: Boiler Area

Date of Assessment: 15-04-2025

1. Objective

Evaluate the heat stress exposure and indoor thermal comfort conditions in the **Boiler Area**, using:

- The **ACGIH WBGT index** for occupational exposure
 - The **ASHRAE Standard 55:2020** for indoor thermal comfort
-

2. Environmental & Operational Parameters

Parameter	Value
Air Movement	< 0.1 m/s

Worker Type	Regular
Workload	Moderate
Clothing	Mixed fabric
Environment	Indoor
Dry Bulb Temp (DBT)	40°C
Wet Bulb Temp (WBT)	29°C
Globe Temp (GT)	~48°C (due to exposed boiler surfaces)
Relative Humidity (est.)	~44%

3. ACGIH WBGT-Based Heat Stress Evaluation

3.1 WBGT Calculation (Indoor with Radiant Heat)

$$\text{WBGT} = (0.7 \times 29) + (0.2 \times 48) + (0.1 \times 40) = 20.3 + 9.6 + 4.0 = 33.9^\circ\text{C}$$

3.2 ACGIH TLVs® Comparison Table

Workload	Acclimatized (°C)	TLV Unacclimatized (°C)	TLV Measured WBGT	Status
Light	30.0	28.0		✗ Exceeds both
Moderate	29.0	26.0	33.9°C	✗ Exceeds by 4.9–7.9°C
Heavy	27.5	24.0		✗ High exceedance risk

Reference: ACGIH (2024). *Heat Stress TLVs® – Indoor Radiant Load*

4. ASHRAE 55 Thermal Comfort Assessment

Parameter	ASHRAE Acceptable Range Measured / Estimated Compliant?		
Dry Bulb Temperature	20–27°C	40°C	✗
Globe Temperature	≤35°C	~48°C	✗
Relative Humidity	≤60%	~44%	✓
Air Movement	≥0.05 m/s	< 0.1 m/s	✓
PMV / Discomfort Index –0.5 to +0.5		PMV ~+2.8 to +3	✗

Interpretation:

The boiler area violates ASHRAE 55 thermal comfort limits. High dry and globe temperatures indicate **severe heat buildup**, contributing to **high worker discomfort**.

5. Risk Classification Summary

Standard	Metric	Threshold	Measured Risk Level
ACGIH	WBGT (°C)	29.0°C	33.9°C ▲ Severe Heat Stress
ASHRAE 55	PMV / GT	PMV ±0.5 / GT ≤35°C	PMV ~+3 ✗ Thermal Discomfort

6. Recommendations

🔧 Engineering Controls

-
- Provide **spot ventilation** or **extraction fans** for local heat control.
 - Apply **thermal insulation** to accessible steam and condensate lines.
 - Establish **air-conditioned rest points** nearby for breaks.

□ Administrative Controls

- Apply **15:45 min work-rest scheduling**.
- Provide **ORS or electrolyte-rich drinks** during shift.
- Conduct **heat stress awareness training**.

🛡️ PPE & Cooling Aids

- Recommend **cooling vests or neck wraps**.
- Mandate **moisture-wicking FR coveralls**.

□ Health Monitoring

- Ensure **pre- and mid-shift health checks**.
- Maintain **incident log for heat illness symptoms**.
- Provide **ice packs and rapid cooling equipment**.

7. Conclusion

The **Boiler Area** exhibits a **WBGT of 33.9°C**, exceeding limits for moderate workloads and violating thermal comfort thresholds. It is advisable to promptly implement engineering, administrative, and medical controls to safeguard workers from heat-related illnesses.

Heat Stress Assessment Report

Area: Scrap Yard

Date of Assessment: 15-04-2025

1. Objective

Evaluate outdoor heat stress exposure in the **Scrap Yard** area, which is **partially sheltered**, using:

- **ACGIH WBGT criteria** for heat illness prevention
 - **ASHRAE 55:2020** guidelines for outdoor thermal comfort
-

2. Environmental & Operational Parameters

Parameter	Value
Air Movement	0.9 m/s (adequate airflow)
Worker Type	Regular
Workload	Moderate
Clothing	Mixed fabric
Environment	Outdoor with shed (partial)
Dry Bulb Temp (DBT)	35°C
Wet Bulb Temp (WBT)	25°C
Globe Temp (GT)	~44°C (due to partial shading & radiant metal surfaces)
Relative Humidity (est.)	~45%

3. ACGIH WBGT-Based Heat Stress Evaluation

3.1 WBGT Calculation (Outdoor, Partial Shade)

$$\text{WBGT} = (0.7 \times 25) + (0.2 \times 44) + (0.1 \times 35) = 17.5 + 8.8 + 3.5 = 29.8^\circ\text{C}$$

3.2 ACGIH TLVs® Comparison Table

Workload	Acclimatized (°C)	TLV Unacclimatized (°C)	TLV Measured WBGT	Status
Light	30.0	28.0		
Moderate	29.0	26.0	29.8°C	✗ Exceeds by 0.8–3.8°C
Heavy	27.5	24.0		

Reference: ACGIH (2024). *TLVs® for Heat Stress and Strain (Outdoor with Partial Solar Load)*

4. ASHRAE 55 Thermal Comfort Assessment

Parameter	ASHRAE Acceptable Range	Measured / Estimated	Compliant?
Dry Bulb Temperature	≤32°C (outdoor threshold)	35°C	✗
Globe Temperature	≤35°C	~44°C	✗
Relative Humidity	≤60%	~45%	✓
Air Velocity	0.3–1.0 m/s	0.9 m/s	✓
PMV / Discomfort	–0.5 to +0.5	~+2.5 to +3	✗

Interpretation:

While airflow is **favourable**, **radiant surfaces** and **warm ambient temperature** create a **discomforting microclimate**, not aligned with ASHRAE comfort zones.

5. Risk Classification Summary

Standard	Metric	Threshold	Measured	Risk Level
ACGIH	WBGT (°C)	29.0°C	29.8°C	⚠️ Slight Heat Stress
ASHRAE 55	PMV / GT	PMV ±0.5 / GT ≤35°C	PMV ~+3	✖ Thermal Discomfort

6. Recommendations

🔧 Engineering Controls

- Improve **reflective coverage** in scrap accumulation zones.

☐ Administrative Controls

- Schedule **material handling** during morning/evening shifts
- Enforce **hydration breaks every 20–30 minutes**.
- Rotate workers assigned to radiant hotspots.

🛡️ Cooling PPE

- Provide **cooling towels / neck wraps**.
- Encourage use of **UV-resistant, breathable clothing**

☐ Health Monitoring

- Conduct **mid-shift symptom checks**.
- Place **heat stress signage** and emergency contact info in visible zones.
- Keep **ORS and cold packs** nearby.

7. Conclusion

The **Scrap Yard** has a **WBGT of 29.8°C**, which marginally exceeds ACGIH limits for moderate work. Despite adequate air movement, radiant exposure and surface heating contribute to **mild but notable heat stress risk**, requiring basic but consistent controls.

Heat Stress Assessment Report

Area: Nitrogen Plant

Date of Assessment: 15-04-2025

1. Objective

Evaluate occupational heat stress exposure in the **Nitrogen Plant (indoor)** environment, using:

- **ACGIH WBGT method** for occupational health risk from heat
- **ASHRAE 55:2020** standard for thermal comfort assessment in process facilities

2. Environmental & Operational Parameters

Parameter	Value
Air Movement	< 0.1 m/s
Worker Type	Regular
Workload	Moderate
Clothing	Mixed fabric
Environment	Indoor
Dry Bulb Temp (DBT)	39°C
Wet Bulb Temp (WBT)	26°C
Globe Temp (GT)	~50°C (heat from process piping/equipment)
Relative Humidity (est.)	~35%

3. ACGIH WBGT-Based Heat Stress Evaluation

3.1 WBGT Calculation (Indoor, Low Air Movement, Radiant Heat)

$$\text{WBGT} = (0.7 \times 26) + (0.2 \times 50) + (0.1 \times 39) = 18.2 + 10.0 + 3.9 = 32.1^\circ\text{C}$$

3.2 ACGIH TLVs® Comparison Table

Workload	Acclimatized (°C)	TLV Unacclimatized (°C)	TLV Measured WBGT	Status
Light	30.0	28.0		

Workload	Acclimatized (°C)	TLV Unacclimatized (°C)	TLV Measured WBGT	Status
Moderate	29.0	26.0	32.1°C	✗ Exceeds by 3.1–6.1°C
Heavy	27.5	24.0		

Reference: ACGIH (2024). *Heat Stress TLVs® – Indoor Radiant Load*

4. ASHRAE 55 Thermal Comfort Assessment

Parameter	ASHRAE Acceptable Range	Measured / Estimated	Compliant?
Dry Bulb Temperature	20–27°C	39°C	✗
Globe Temperature	≤35°C	~50°C	✗
Relative Humidity	≤60%	~35%	✓
Air Velocity	≥0.05 m/s	< 0.1 m/s	✓
PMV / Thermal Sensation	–0.5 to +0.5	PMV ~+2.8	✗

Interpretation:

Thermal conditions violate **ASHRAE 55 comfort thresholds**, especially due to **low air movement and radiant heat from process lines**.

5. Risk Classification Summary

Standard	Metric	Threshold	Measured	Risk Level
ACGIH	WBGT (°C)	29.0°C	32.1°C	▲ High Heat Stress
ASHRAE 55	PMV / GT	PMV ±0.5 / GT ≤35°C	PMV ~+3	✗ Thermal Discomfort

6. Recommendations

🔧 Engineering Controls

- Improve **air circulation** with axial or ceiling-mounted fans.
- Apply **thermal insulation on hot pipes and surfaces**.
- Consider **ventilation duct rerouting** to lower enclosed heat.

📋 Administrative Controls

- Schedule **breaks in cooler zones** every hour
- Ensure **availability of water/ORS** and encourage frequent intake.
- Brief teams on **symptoms of fatigue or heat stress**

🛡️ Cooling PPE

- Provide **cooling vests** and **moisture-wicking FR garments**.
- Issue **UV-blocking face shields or caps** in radiant sections.

🏥 Medical Monitoring

- Monitor **early shift workers** most exposed.
- Conduct **real-time observation or buddy checks**.
- Ensure **access to cold storage / recovery station**.

7. Conclusion

The **Nitrogen Plant** shows **elevated WBGT of 32.1°C**, indicating a **significant heat stress risk for moderate work**, especially due to poor air movement and radiant loads. Engineering improvements and effective administrative controls are necessary to ensure safe working conditions.



TC- 15934

Annexure-14

OCEAO-ENVIRO RESEARCH & ANALYTICAL LABORATORIES (INDIA) PVT. LTD

NABL Approved Laboratory ISO/IEC 17025:2017
AN ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory
Plot No. 218, Second Floor, Sector-11, Vasundhara, Ghaziabad U.P. 201012
Email: lab@oceaoenviro.com | Website: www.oceaoenviro.com | Ph: 0120-4338047



TEST REPORT			
TEST REPORT NO.:	OEL/WW/0625/03	DATE OF REPORT:	20.06.2025
WASTE WATER SAMPLE ANALYSIS REPORT			
Name And Address of Customer	M/S JSW STEEL COATED PRODUCT LTD. (COLD ROLLING DIVISION), BAWAL WORKS, PLOT NO.7 TO 12, IMT BAWAL ROAD SECTOR-6, BAWAL, DISTRICT- REWARI, HARYANA.		
Date of Sampling	13.06.2025		
Analysis Start Date	16.06.2025	Analysis End Date	19.06.2025
Sample ID No	OEL/WW/0625/03		
Sampling Done By	Sampling Executive		
Sample Description	STP INLET 60 KLD	Source	STP
Sampling Location (Geo Coordinators)	Lat-28.098765°		Long – 76.5812°
Sampling Method	OEL/STP/WATER-02		
Sample Quantity	2.0+ 0.5 Ltr		
Packing Condition	Sealed & P.V.C and Glass Bottle		

S.No.	Test Parameter	Unit	Result	Test Method
1	pH at 25° C	...	7.42	APHA 4500-H+
2	Total Suspended Solids,(TSS)	mg/L	339.8	APHA 2540-D
3	Oil & Grease, (O & G)	mg/L	5.3	APHA 5520-D
4	Biological Oxygen Demand(BOD _{3d} 27°C)	mg/L	136.0	IS: 3025 (Part-44)
5	Chemical Oxygen Demand,(COD)	mg/L	860.0	APHA 5220-B

For OCEAO-ENVIRO RESEARCH & ANALYTICAL LABORATORIES (INDIA) PVT. LTD

CHECKED BY
(Vandana Gupta)

AUTHORIZED SIGNATORY
(Dr. Priya Chaudhary)

Note:

1. The results indicated only refer to the tested samples and listed applicable parameters.
2. No Complaint will be entertained if received after 15 days of issue of test Report.
3. Our liability is limited to invoice value only.
4. The same sample shall be destroyed after 15 days. Issue of test report
5. The Test report shall not be used in any advertising media or as evidence in the court of Law without prior written permission of the laboratory.



TC- 15934

Annexure-15

OCEAO-ENVIRO RESEARCH & ANALYTICAL LABORATORIES (INDIA) PVT. LTD

NABL Approved Laboratory ISO/IEC 17025:2017
AN ISO 9001:2015, ISO 14001:2015, ISO 45001:2018 Certified Laboratory
Plot No. 218, Second Floor, Sector-11, Vasundhara, Ghaziabad U.P. 201012
Email: lab@oceaoenviro.com | Website: www.oceaoenviro.com | Ph: 0120-4338047



TEST REPORT			
TEST REPORT NO.:	OEL/WW/0425/04	DATE OF REPORT:	20.06.2025
WASTE WATER SAMPLE ANALYSIS REPORT			
Name And Address of Customer	M/S JSW STEEL COATED PRODUCT LTD. (COLD ROLLING DIVISION), BAWAL WORKS, PLOT NO.7 TO 12, IMT BAWAL ROAD SECTOR-6, BAWAL, DISTRICT- REWARI, HARYANA.		
Date of Sampling	13.06.2025		
Analysis Start Date	16.06.2025	Analysis End Date	19.06.2025
Sample ID No	OEL/WW/0625/04		
Sampling Done By	Sampling Executive		
Sample Description	STP OUTLET 60 KLD	SOURCE	STP
Sampling Location (Geo Coordinators)	Lat- 28.098766°		Long – 76.581278°
Sampling Method	OEL/STP/WATER-02		
Sample Quantity	2.0+ 0.5 Ltr		
Packing Condition	Sealed & P.V.C and Glass Bottle		

Sr. No.	Test Parameter	Unit	Result	Specification/Limit (As per HSPCB)		Test Method
				Standards prescribed by the board for Discharge of Treated WasteWater STP	Irrigation	
1	pH at 25° C	...	7.34	5.5 - 9.0	6.5 - 8.0	APHA 4500-H+
2	Total Suspended Solids,(TSS)	mg/L	9.3	20	20	APHA 2540-D
3	Oil & Grease, (O & G)	mg/L	BDL(DL-4.0)	Not Specified	Not Specified	APHA 5520-D
4	Biological Oxygen Demand(BOD _{3d} 27°C)	mg/L	6.4	10	10*	IS: 3025 (Part-44)
5	Chemical Oxygen Demand,(COD)	mg/L	40.0	50	50*	APHA 5220-B

*****End of Test Report*****

For OCEAO-ENVIRO RESEARCH & ANALYTICAL LABORATORIES (INDIA) PVT. LTD.

CHECKED BY
(Vandana Gupta)

AUTHORIZED SIGNATORY
(Dr. Priya Chaudhary)

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TEST REPORT

TEST REPORT NO.:	OEL/NQ/0625/11	DATE OF REPORT:	20.06.2025
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NOISE MONITORING REPORT

Name And Address of Customer	M/S JSW STEEL COATED PRODUCT LTD. (COLD ROLLING DIVISION), BAWAL WORKS, PLOT NO.7 TO 12, IMT BAWAL ROAD SECTOR-6, BAWAL, DISTRICT- REWARI, HARYANA.	
Date of Monitoring	13.06.2025	
Monitoring Start Date	13.06.2025	
Monitoring End Date	14.06.2025	
Duration of Monitoring	24 hourly	
Sample ID No	OEL/NQ/0625/11	
Monitoring Done By	Sampling Executive	
Sampling Location (Geo – coordinates)	Lat- 28.098352°	Long- 76.583625°
Sampling Machine Placed at Height	1.5 Meter from Ground Level	
Sampling Method	OEL/STP/NOISE-01	
Zone Classification	COMMERCIAL AREA	

S. No	Test Parameter	Unit	Result	Specification/Limit (As per CPCB)	Test Method
1	Day Time Noise Level	Leq :dB (A)	55.5	65	IS: 9989
2	Night Time Noise Level	Leq :dB (A)	39.2	55	IS: 9989

Remark: Day time is reckoned in between 06.00 A.M. and 10.00 P.M.
Night time is reckoned in between 10.00 P.M. and 06.00 A.M

Remark: BDL-Below Detection Limit, DL- Detection Limit

*****End of Test Report*****



For OCEAO-ENVIRO RESEARCH & ANALYTICAL LABORATORIES (INDIA) PVT. LTD

CHECKED BY
(Vandana Gupta)



AUTHORIZED SIGNATORY
(Dr. Priya Chaudhary)

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FORM F
[Under Rule 13 of the Punjab Shops and Commercial Establishments Act, 1958]

Registration Certificate

Regn. No.: PSA/REG/MGH/LLRWH-30/147867

Dated: 21-December-2020 BIP ID - 338030

The establishment whose particulars are given below is hereby registered under Section 13 of the Punjab Shops and Commercial Establishments Act, 1958:

Name and Percentage of Employer:

RAJU SINGH RAWAT

S/D/W/O

Full Postal Address of the Employer:

H.NO-561-1, NEAR PANCHYAT BHAWAN, NEW ADHARSH
Vil:Bhagot, Teh:Mahendragarh, Distt:Mahindergarh
State:Haryana

Name of the Manager:

RAJU SINGH RAWAT

Name of the Establishment:

CAPTAN FARMING

Full Postal Address of the Establishment:

CAPTAN FARMING, SEWER ROAD, NEAR WATER RIVER, VILLAGE-BHAGOT, DISTT-MAHENDRAGARH,

HARYANA, Vil:Bhagot, Teh:Mahendragarh, Distt:Mahindergarh, State:Haryana

Nature of the Business:

All Shops/commercial Establishments Having Less Than 10
Employees Or Self-managed, Pig Farming

Number of Employees(if any):

Young Persons: Nil

Other Persons: 8

No. & Date of Previous Registration Certificate Surrendered:

Amount of Registration/Renewal Fee Deposited:

300

This Certificate will remain in force till 31st Dec
of March. Exemption for Renewal

Inspector

Shops and Commercial Establishments

City

Shop license verify no. 8859d10005bfeb9

NOTE: This is a computer generated certificate and does not require any signature or authority. The Occupier/Employer is required to inform any change in respect of info contained in above statement in form 'G' prescribed under Rule 13 of the Punjab Shops and Commercial Establishments Rules, 1958 to the concerned authority / Labour Inspector.

उत्पादकता एवं सामाजिक न्याय
PRODUCTIVITY WITH SOCIAL JUSTICE

शान्ति, सामंजस्य एवं सुरक्षा
PEACE, HARMONY AND SAFETY

DISCLAIMER

This Certificate is based on self-certified information provided by Occupier/Employer and is unverified/invalid for KYC

LABOUR DEPARTMENT

30 Boys Building, 1st Floor,
Sector 17-B, Chandigarh - 160 017
Tel: 0172-2701265 Tel: 0172-2701373
Web: <http://hrylabour.gov.in>
Email: labourcommissioner@hry.nic.in

The Certificate is based on the information provided by the Occupier/Employer and is unverified/invalid for KYC

108
15-7-2020
Manphool s/o Bijaram
Tosham

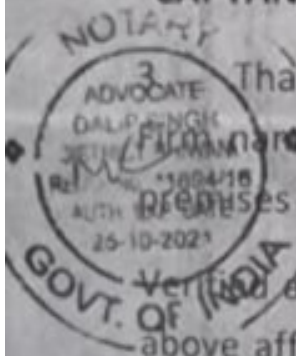
Satish Kumar
Stamp Vander
Tosham (Paliwani)

Satish Kumar
Stamp
Tosham

NO OBJECTION CERTIFICATE

I, Manphool s/o Bijaram, Resident at, Village-Bhagot, Narnaul Dist- Mahinderghar Haryana-123027, do hereby solemnly affirm as under :-

1. That I am the Legal owner/Occupier and in possession of property bearing at Village-Bhagot, Narnaul and dist.- Mahinderghar Haryana.
2. That Mr. Raju Singh Rawat is my Son and is start Firm named "CAPTAN FARMING".



That I shall have "No Objection" if the registered office of the Firm named "CAPTAN FARMING" shall be situated at my above said premises and

Verified at Tosham on this 15th Day Of July, 2020, that contents of the above affidavit are true and correct to the best of my knowledge and belief and nothing has been concealed there from.

Manphool
Owner

ATTESTED

MRS
NOTARY DOSTI BHANU
15/07/2020

Manphool
Owner

Annexure-18

Energy Efficiency Pathway

Cost to reduce emissions from Energy Efficiency (\$/tCO ₂ e)	15
Biogas - book and claim certification (\$/MMBTU)	25
Cost of hydrogen (Rs/kg of H ₂)	2750
NCV of Hydrogen, MMBTU/kg (considering 120 MJ/kg)	0.113738

Renewable Energy Projects Cost

Average(USD/t CO ₂ e)	26.00
----------------------------------	-------

Hydrogen Use Assumptions

Specific Energy Consumption (GJ/Tonne)	79.80
Hydrogen Calorific Value (MJ/Kg)	130 World Nuclear Association
Coal Calorific Value (MJ/kg)	29.1
Hydrogen Power Plant Efficiency (%)	60
Coal power plant efficiency (%)	40
Coal Equivalency (Kg Coal /Kg of hydrogen)	6.70
Hydrogen use percentage in energy mix by 2040 (%)	7.00 Teri - Shell Net Zero Emission Systems in India by 2050 Report

Levelized Cost of Hydrogen Generation (USD/Kg)

FY2030	3.09 Capex,Opex - (Electrolysers,Transportation and Storage)
FY2050	1.35
Average	2.22

Currency exchange rate USD to INR	80
-----------------------------------	----

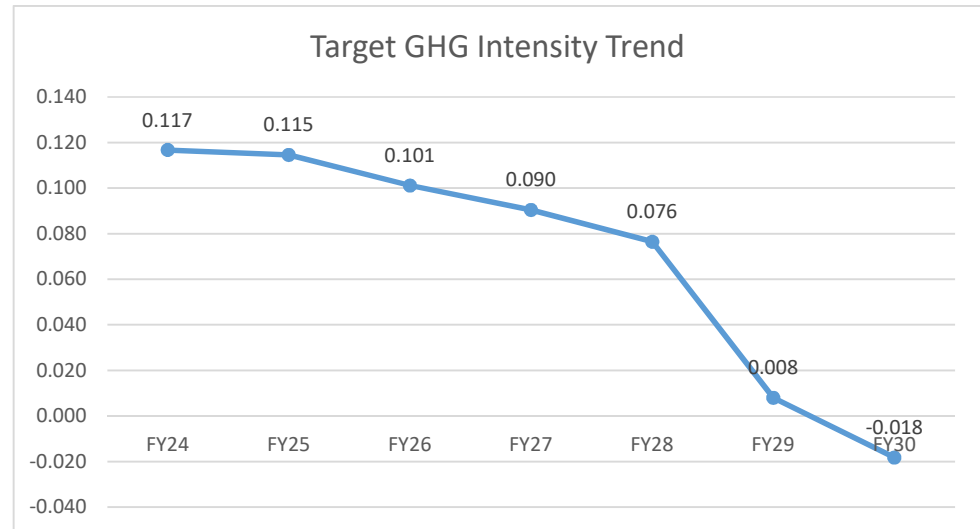
Emission factor - Grid Electricity (ton/Mwh)	0.72
Emission factor - JSW Energy Electricity (ton/kwh)	0.88
Emission factor - RLNG (ton/MMBTU)	0.0592
Emission factor - Propane (ton/kg of propane)	0.002985
Emission factor - HSD (ton/TJ)	74.100
Emission factor - Rice Husk (ton/TJ)	0.000
Emission factor - Bio-Gas (ton/TJ)	0.170
Emission factor - Hydrogen (ton/TJ)	0.000
Emission factor - Coal (ton/TJ)	90.600
Carbon sequestered by an average tropical tree per year (in kg)	22.6

Propane consumption reduction	0	0	0	0	0	0	0	0	
Emission reduction-RLNG (tCO2)	231	218	214	211	208	164	103	57	1175
Emission reduction-Electricity (tCO2)	403	372	366	361	355	350	345	339	2488
Emission reduction- Coal (tCO2)	0	0	0	0	0	0	0	0	0
Emission reduction - Propane (tCO2)	0	0	0	0	0	0	0	0	0
Renewable Energy									
% RE electricity	0%	0%	0%	0%	0%	0%	75%	100%	
Renewable electricity consumption			0	0	0	0	23740	7438	31178
Installed capacity required (MW)@PLF 0.24			0	0	0	0	13	4	17
Emission reduction - Electricity	0	0	0	0	0	0	21807	5319	5319
Furnace Electrification									
Present RLNG consumption in furnace (MMBTU/hr)									
RLNG consumption reduction (MMBTU)	0	0	0	0	0	0	0	0	0
Additional RE Installed capacity required (MW)@PLF 0.24		0	0	0	0	0	0	0	0
Emission reduction - Furnace electrification		0	0	0	0	0	0	0	0
Biogas									
Biogas as % of RLNG consumption		0	0	0	0	20%	30%	40%	
RLNG consumption reduction		0	0	0	0	40393	38196	28092	106681

emission reductions - Biogas		0	0	0	0	2391	2261	1663	6314
CCUS									
RLNG consumption in Boiler, MMBTU									
Emissions from Boiler		0	0	0	0	0	0	0	
%CO2 captured and stored (Incremental %)		0%	0%	0%	0%	0%	0%	0%	
Emission reduction - CCUS		0	0	0	0	0	0	0	0
Green Hydrogen									
Green Hydrogen as % of RLNG consumption	0%	0%	0%	0%	20%	20%	20%	61%	
RLNG consumption reduction, MMBTU					51261	32315	17825	42138	
Emission reductions - Green Hydrogen (tCO2)					3034	1913	1055	2494	8496
Offset - Carbon sequestration through plantation									
Number of Trees plantation		0	0	0	20000	20000	10000	0	
Carbon sequestered, tCO2		0	0	0	452	452	226	0	1130
Target Energy consumption									
RLNG consumption	284627	268191	264169	260206	205042	129259	71299	0	
Electricity consumption	36973	34138	33626	33121	32625	32135	31653	31178	
Coal consumption		0	0	0	0	0	0	0	
Propane consumption		0	0	0	0	0	0	0	
Target GHG emission		39284	38704	38132	34083	28814	3017	-6855	
Target GHG intensity		0.117	0.115	0.101	0.090	0.076	0.008	-0.018	
Investment required in USD									
Energy Efficiency, in USD	9502	8839	8706	8576	8447	7706	6719	5947	64442
Renewable Energy, in USD	0	0	0	0	0	0	671377	210365	881742

Furnace Electrification, in USD									0
Biogas, in USD	0	0	0	0	0	1009834	954899	702296	2667029
CCUS, in USD	0	0	0	0	0	0	0	0	0
Cumulative expense Green Hydrogen, in USD (Revenue expenditure)	0	0	0	0	1,45,81,147	2,37,73,102	2,88,43,385	4,08,29,533	40829533

		CO2 reduction trajectory	
Total emission	47887	FY25	580
Energy efficiency	-3663	FY26	572
Renewable energy	-5319	FY27	4049
Furnace Electrification	0	FY28	5269
Bio-Gas	-6314	FY29	25797
CCUS	0	FY30	9872
Hydrogen	-8496		
Offset			





Steel Coated Products Limited

व्यावसायिक स्वास्थ्य, सुरक्षा और पर्यावरण नीति

हम जेएसडब्ल्यू स्टील कोटेड प्रोडक्ट्स लिमिटेड वासिंद तारापुर कलमेश्वर खोपोली बावल, राजपुरा, धार और पुलवामा में कर्मचारियों सहयोगियों और समुदाय के स्वास्थ्य सुरक्षा और हित के लिए प्रतिबद्ध हैं। हम पर्यावरण और प्राकृतिक संसाधनों के संरक्षण के महत्व को भी पहचानते हैं।

हम निम्नलिखित माध्यम से अपने व्यावसायिक स्वास्थ्य सुरक्षा और पर्यावरण प्रदर्शन को बनाए रखने और लगातार सुधारने के लिए प्रतिबद्ध हैं :

- व्यावसायिक स्वास्थ्य सुरक्षा और पर्यावरण के सम्बंधित सभी वैधानिक नियमों और विनियमों का पालन करेंगे।
- हमारे सभी संचालन और कार्यविधियों में ज़ीरो हार्म को हासिल करने के लिए प्रोत्साहित करेंगे।
- सम्बंधित उद्देश्यों को निर्धारित करने और निरंतर स्थायी सुधार प्राप्त करने के लिए संसाधन और रूपरेखा प्रदान करेंगे।
- व्यवहार आधारित सुरक्षा (BBS) और सभी कर्मचारियों और हितधारकों की भागीदारी और परामर्श के माध्यम से सुरक्षा और स्वास्थ्य को एक व्यक्तिगत मूल्य के रूप में विकसित करेंगे।
- व्यावसायिक खतरों घटनाओं और बीमारियों को कम करेंगे और कार्यस्थल को सुरक्षित और स्वस्थ बनाए रखते हुए एर्गोनॉमिक्स में सुधार, समीक्षा और मूल्यांकन करेंगे।
- यह सुनिश्चित करेंगे कि हमारे उत्पाद और प्रक्रियाएं पर्यावरण के अनुकूल हों।
- वैज्ञानिक तरीके से कचरे के निष्पादन के साथ-साथ 4R, यानी कम करना, रीसायकल, दोबारा उपयोग करना और पुनः प्राप्त करने की प्रक्रिया के माध्यम से प्रभावी कचरा प्रबंधन करेंगे।
- सम्बंधित नीति, उद्देश्यों जोखिमों, खतरों और पर्यावरणीय पहलुओं के संबंध में पर्याप्त प्रशिक्षण और पुनः प्रशिक्षण के माध्यम से कर्मचारियों की जानकारी बढ़ाएंगे।
- यह नीति आवश्यकता पड़ने पर इच्छुक पार्टियों के लिए उपलब्ध होगी।
- इस नीति को हर दो साल में या आवश्यकता पड़ने पर संशोधित किया जाएगा।



अश्वनी कुमार शर्मा

आक्युपाइअर

दिनांक : 23.04.2025

संशोधन सं : 05



Steel Coated Products Limited

Occupational Health, Safety & Environment Policy

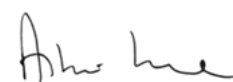
We at JSW Steel Coated Products Limited, Vasind, Tarapur, Kalmeshwar, Khopoli, Bawal, Rajpura, Dhar & Pulwama are committed to the Health, Safety, and well-being of the Employees, Associates & Community. We also recognize the importance of the protection of the environment and the conservation of natural resources.

We are committed to sustaining and continuously improving our Occupational Health, Safety, and Environmental performance through:

- Surpassing compliance with all relevant statutory rules, regulations and other requirements.
- Recognize it as integral part of our all operation and activities by promoting “Zero Harm”.
- Providing resources and a structured framework for setting objectives and targets.
- Embedding this as a personal value through Behavior-Based Safety and encouraging active participation and consultation of all employees and stakeholders.
- Proactively reviewing and assessing working conditions to prevent occupational hazards, incidents, and ill-health, while improving ergonomics to maintain a safe and healthy workplace.
- Ensuring that our products and processes are environment-friendly.
- Implementing effective waste management based on the 4Rs-Reduce, Recycle, Reuse, and Recover, along with scientific disposal of waste.
- Enhancing employee competency through adequate training and retraining on policy, objectives, targets, risks, hazards, and environmental aspects.
- Making this policy available to interested parties as and when required.
- Reviewing and revising this policy every two years or as needed.

Date: 23.04.2025

Revision No. 05



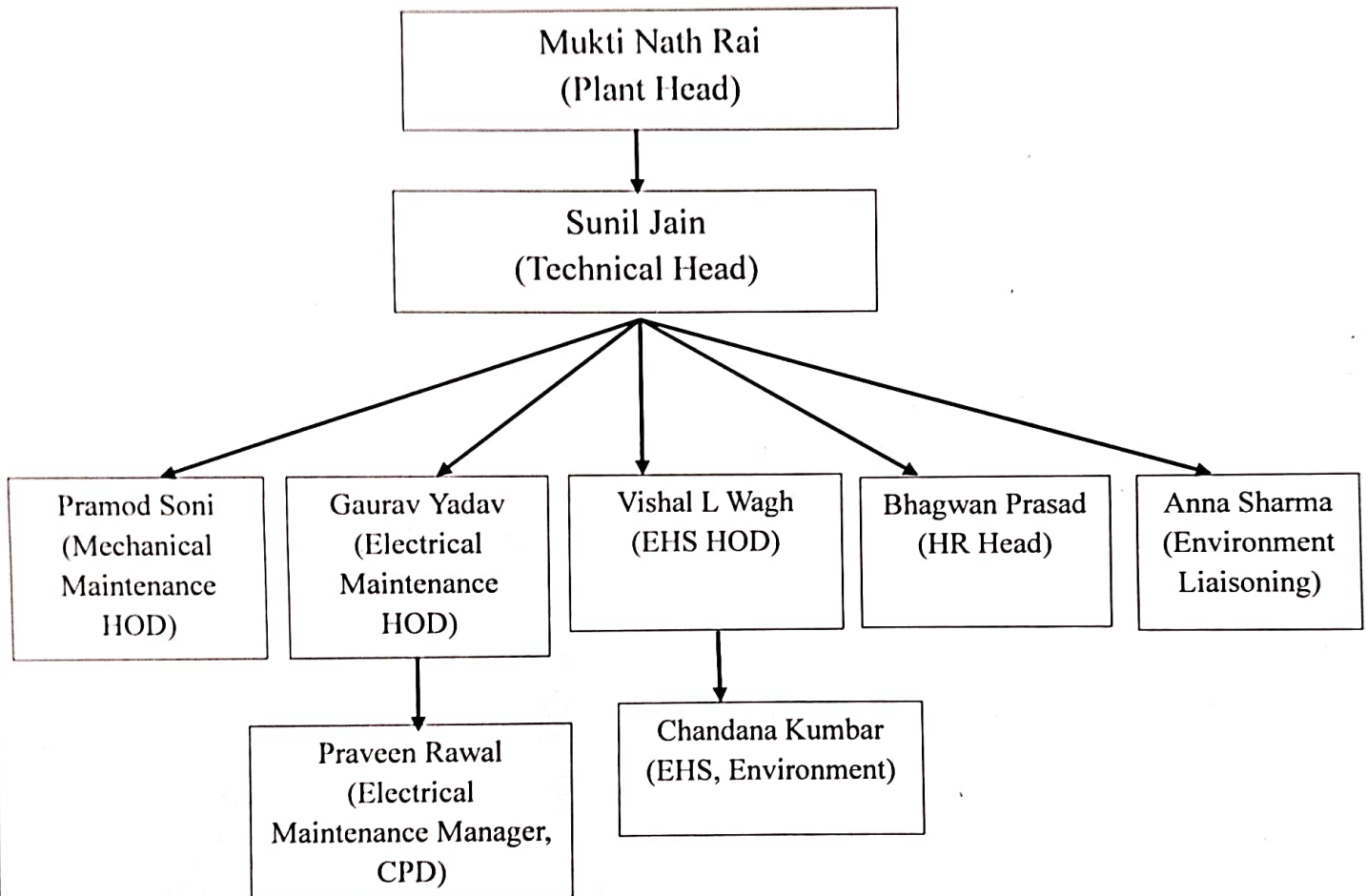
Ashwani Kumar Sharma

Occupier

JSW Steel Coated Products Limited, Bawal

ENVIRONMENT CELL

PLANT LEVEL





Mukti Nath Rai
(Plant Head, Bawal)

The Times of India
16/4/2025

TIMES CITY

suspended
g to monitor
collection

man@timesofindia.com

ommissioner Ashok Kumar
rior sanitary inspector (SSI)
uesday for dereliction of duty
nce.

ner stated in his order that a
the SSI on March 4 regarding
notice to the agency handling
or waste collection. Officials
try into the matter will follow.
ommissioner noted several
ative lapses, including the
ligence in duties, inadequate
ation services, improper re-
incorrect penalty calcula-
ent monitoring of secondary
remained unavailable for a
peated attempts.

erved that despite the issuan-
notice dated March 4, 2025, re-
surance of demand notice to
bage collection agency, no sa-
ion or progress was reported
in view of the above and in the
ning administrative discipli-
lity, the undersigned hereby
wla, SSI Zone-III, under su-
ediate effect, pending a detai-
e matter. During the period of
Chawla shall be entitled to
nce as per rules and shall not
thout prior permission of the
l the order issued on Tuesday.

ड पावर कार्पोरेशन लिमिटेड
भयना, विद्युत वितरण मण्डल चम्पावत
ट्रेडर/लिचि विस्तार सूचना

MCG launches 48-hour drive waste mounts at collection s

Move Comes After Mayor & MCG Chief Hold Inspections A

TIMES NEWS NETWORK

Gurgaon: MCG commissioner Ashok Kumar Garg and mayor Raj Rani Malhotra conducted an inspection on Tuesday at secondary waste collection sites at Beriwal Bagh, Jharsa, Carterpuri and Khandsa. During their visit, they issued instructions to MCG officials, mandating clearance of all these collection points within 48 hours.

Officials have been directed to maintain regular transportation of waste from these secondary collection sites to Bandhwari landfill.

Garg also instructed officials to ensure regular and better cleaning of roads, markets, garbage prone points and other public places.

Residents of societies located near dumping sites have been raising concerns about unauthorised waste disposal in their neighbourhoods.

"The unbearable odour from the dump sites have made staying indoors uncomfortable. Moreover, heaps of waste have turned into breeding spots for flies and mosquitoes, posing serious health risks to residents," said Jitender Jaggi, general secretary of Housing Board Colony RWA in Sector 31. He said residents have approached MCG officials several times, to no avail.

"This is a huge health hazard and we are forced to live with it. A few days



Global Public School
E Affiliated English Medium Senior Secondary School)

REQUIREMENT

IAJIV COLONY BRANCH

T : ENGLISH · PRIMARY TEACHER

TEACHER · Class 1 · DANCE TEACHER

· GUARD/ GATEKEEPER

— TEEKLI BRANCH

NERK, MOTHER TEACHER · CLASS 2

OGA TEACHER, RECEPTIONIST

HOSTEL WARDEN

idate, Mess and lodging facilities provided)

OOK FOR HOSTEL MESS

lust have experience in school.

cooking varieties of vegetarian dishes.

tender & notices

PUBLIC NOTICE

ELECTION NOTIFICATION

It is notified that the election of the Governing Body of J.M. Rehabilitation & Research Centre, Ateli Mandi, Tehsil- Narnaul, Dist.- Mahendergarh, Haryana for the post of President, Vice President, General Secretary, Joint Secretary, Treasurer, Eleven (11) EC Members, One (01) Teaching Representative & One (01) Non-Teaching Staff Representative shall be held as under per schedule given below at college campus:-

I	Date of filing of Nomination	17.04.2025 (10AM to 5 PM)
II	Date of scrutiny of nomination	21.04.2025
III	Date of withdrawal of Nomination	23.04.2025
IV	Assemble of Election Symbol	26.04.2025
V	Date of Election	09.05.2025

I, Suresh Devi W/o Late Sh. Abhay Singh R/o Village Baslamdi District Gurugram. Declare that my son Mohit and his wife Radhika alias Radha are out of my control. I disown them from my all movable and immovable properties. Anybody deals with them at their own risk. I and my family are not responsible for any kind of act done by them

PUBLIC NOTICE

The Public at large is hereby informed that Late Sh Girdhari Lal S/o Late Sh Duli Chand R/o Mayur vihar Gali No 1, Rewari Haryana was having residential property in our project Plot No 40, Block A-10, admeasuring 113.12 Sq. Yards /94.58 Sq. Meters, Sector -88B, Gurugram, Which is his legal heirs Sh. Anurag Yadav and Meenu Yadav requested the company to be transfer to his son Anurag Yadav. Any person any objection on this please may contact the company officer details as under within 15 days after which No claim would be accepted.

Vatika Limited

A-002, Ground Floor, Block -A,
Vatika INXT City Centre Sector -83,
Gurugram, Haryana, India -1220172

PUBLIC NOTICE

The General public is hereby informed that M/s. JSW Steel Coated Products Ltd., having its office at Plot No- 7 to 12, IMT Bawal Road, Sector-6, Bawal, Rewari, Haryana has been granted Environment Clearance by the State Environment Impact Assessment Authority (SEIAA), Haryana, Bays No. 55-58, Prayatan Bhawan, Sector-2, Panchkula, Haryana vide their File No.IA-J-11011/446/2021-IA-II(IND-I), dated 25.06.2024. General Public is further informed that copy of said Environment Clearance Letter is available in the office of State Pollution Control Board, Panchkula and State Environment Impact Assessment Authority (SEIAA), Panchkula, Haryana and our office.

M/s. JSW Steel Coated Products Ltd.
Rewari (Haryana)

I Smt. Anita Devi W/o
Subhash Chand R/o House
No. 8870, Gokulnagar, Sector-

on Tuesday
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5,500) for e
rickshaws
per kWh
(capped at

b-01
Government
PH. No. 0674-
Identifica

Sl. No.	Name of the work
01	S/R to NH-316 (Temple Link) such as Laying 30 mm thick BC from Km. 0/000 to 1/600 and Km. 59/000 to 59/900 (in stretches) from Temple Office to Gundicha Temple for the year 2025-26.
02	Further details can be seen hours of 15.04.2025

ढींगरा आयोग की जांच नतीजे पर नहीं पहुंची तो ईडी ने संभाला मोर्चा

हुड्डा सरकार ने दी थी वाड़ा की कंपनी को सस्ती दरों पर जमीन

राज्य ब्यूरो, जागरण • चंडीगढ़ : कांग्रेस की पूर्व अध्यक्ष सोनिया गांधी के दामाद राबर्ट वाड़ा की कंपनी को सस्ती दरों पर जमीन देने का घटनाक्रम साल 2008 का है। उस समय राज्य में कांग्रेस की सरकार थी और भूपेंद्र हुड्डा मुख्यमंत्री थे।

भाजपा ने साल 2014 के विधानसभा चुनाव में राबर्ट वाड़ा को फायदा पहुंचाने का आरोप लगाते हुए इसे चुनावी मुद्दा बना दिया था। मामले की जांच के लिए जस्टिस एसएन ढींगरा के नेतृत्व में आयोग भी गठित किया गया था, लेकिन तब से जांच किसी ठोस नतीजे पर नहीं पहुंची। इस संबंध में केस कई



कामर्सियल लाइसेंस के बाद डीएलएफ को वेंच दी गई थी जमीन, बदले में डीएलएफ को मिला था लाभ

प्रापर्टीज से खरीदा था। इस जमीन

अशोक खेमका ने इस पूरे मामले को उजागर किया था। प्रवर्तन निदेशालय (ईडी) को आशंका है कि राबर्ट वाड़ा की कंपनी से जुड़ी लैंड डील में मनी लाँड्रिंग हुई है। इसलिए ईडी ने पूरे मामले की गहराई से जांच करने की प्रक्रिया चालू कर रखी है। ईडी जिस एफआइआर के आधार पर जांच कर रही है, उसकी शुरुआत साल 2018 में हुई थी। गुरुग्राम के गांव तौरू के रहने वाले सुरेंद्र शर्मा ने गुरुग्राम के खेड़की दोला थाने में एक सितंबर 2018 को शिकायत दर्ज कराई, जिसमें आरोप लगाया गया कि वाड़ा की कंपनी ने कुछ अन्य लोगों के साथ मिलकर

सफदरजंग में बेड का मातृ एवं

राज्य ब्यूरो, जागरण • नई दिल्ली : सफदरजंग अस्पताल में वर्षों ईंतजार के बाद मातृ एवं शिशु के सेंटर के निर्माण के लिए हाल में टेंडर प्रक्रिया के तहत ईओओ (एक्सप्रेसन आफ इंटेरेस्ट) ज किया गया है। इसके तहत कि सार्वजनिक क्षेत्र की कंपनी को सें के निर्माण की जिम्मेदारी दी जाए अस्पताल के एक वरिष्ठ अधिक ने बताया कि करीब 800 करोड़ लागत से करीब एक हजार बेड मातृ एवं शिशु केयर सेंटर बने करीब तीन वर्ष में यह परियोजना पूरी होगी।

पुराने इमरजेंसी ब्लाक के प्र को तोड़कर बहुमंजिला मातृ शिशु केयर सेंटर बनाया जाए अस्पताल प्रशासन जगह उपलब्धता के अनुसार करीब 1

को # Need book Depot, B-1/5, Sector-50 Mkt, Noida # 8588852891 # मिले (समय 4-6pm)

सूचना

मैं, सुरेश देवी पत्नी स्वर्गीय श्री अमर सिंह निवासी गांव बासलाम्बी जिला गुरुग्राम। बयान करती हूँ मेरा पुत्र मोहित व पुत्रवधु राधिका उर्फ राधा मेरे व मेरे परिवार के कहने सुनने से बाहर हैं। अपनी मनमानी करते हैं। लड़ाई झगड़ा करते हैं। इनको मैं अपनी समस्त चल-अचल संपत्ति से बेदखल करती हूँ। भविष्य में इनके साथ किसी भी तरह का लेन-देन एवं व्यवहार करने वाला स्वयं जिम्मेदार होगा। मेरा व मेरे परिवार का कोई वास्ता नहीं रहेगा।

मैं, बलजीत कौर पत्नी दलविन्द सिंह निवासी म.न. डी. 150, गली नं. 10, जवाहर कॉलोनी, सेक्टर-22, फरीदाबाद, बयान करती हूँ कि मेरा पुत्र कमलजीत सिंह, पुत्रवधु गुरुप्रीत कौर व उसकी पुत्री ईशप्रीत कौर जो मेरे कहने में नहीं हैं और लड़ाई झगड़ा करते हैं। इसलिए मैंने इनको अपनी चल व अचल संपत्ति से बेदखल कर दिया है। भविष्य में इनसे लेनदेन करने वाले स्वयं जिम्मेदार होंगे।

मैं अशोक कुमार पुत्र श्री हवा सिंह निवासी गांव रामपुर, तह. खरखोटा, सीनोपत अपने पुत्र आशीष को अपनी तमाम चल-अचल संपत्ति से बेदखल करता हूँ, क्योंकि वह मेरे कहने से बाहर है। भविष्य में इससे लेन-देन करने वाला या इसके द्वारा किए किसी गैर कानूनी कार्य का वह स्वयं जिम्मेदार होगा। मेरा व मेरे परिवार से इसका कोई वास्ता नहीं होगा।

हस्ताक्षर करने वाले:

श्री पवन कुमार अम्बी पुत्र स्व० श्री वेद प्रकाश अम्बी व श्रीमती सुनन्दा अम्बी पत्नी श्री पवन कुमार अम्बी पिताश्रीगण म०न० 848, बतौर पत्नी नियत. सेंट. अलबंस स्कूल, सेक्टर-15, फरीदाबाद, हरियाणा जो इस विषय का इच्छातः भिरगए सम्पत्ति के पुनर्प्राप्ति के लिए अन्तः 50 प्रतिशत से अलवि/सहमति के, श्री पवन कुमार अम्बी का वेदांत दिनांक 06.02.2022 को ही गया था, उन्होंने अपने जीवनकाल में कोई भी संपत्ति नहीं कल/अपनीकृत नहीं कराया था, उनकी मृत्यु के बाद निम्नलिखित वारसान है:- सुनन्दा अम्बी (पत्नी) (2) अन्नीश अम्बी (पुत्र) (3) गुजन खेमका (पुत्री) व (4) शिखर अम्बी (पुत्री) और इनके अलावा अन्य कोई वारिसान नहीं है। अतः, श्रीमती सुनन्दा अम्बी पत्नी स्व० श्री पवन कुमार अम्बी निवासी म०न० 848, बतौर पत्नी, सेक्टर-15, फरीदाबाद, हरियाणा की रहने वाली हैं और कानूनी वारिस होने के नाते अपने पति के उपर्युक्त सम्पत्ति में से अपने पति के 50 प्रतिशत शेयर को अपने पति के हस्ताक्षर के लिए अचल करवा माहरी हैं अगर किसी भी व्यक्ति को इस मकान/प्लॉट के हस्ताक्षर के सिवाय अन्य किसी भी हस्ताक्षर के सिवाय अचल करवा माहरी हैं अन्यथा माहरी सिवाय प्राधिकरण नहीं के अनुसार सम्पत्ति का हस्ताक्षर स्वीकृत है और बाद में किसी भी प्रकार के कानूनी विवाद नहीं किया जाएगा।

कानूनी वारिस: श्रीमती सुनन्दा अम्बी

साधजनिक सूचना

मैं नरेश कुमार पुत्र स्व० श्री धनीराम सैनी निवासी म०न० एक सी रे 95, महावीर कॉलोनी, बल्लभगढ़ तह० बल्लभगढ़ जिला फरीदाबाद का रहने वाला हूँ निम्न बयान शपथ पूर्वक करता हूँ कि यह कि मैं उपरोक्त पति का निवासी हूँ यह कि श्रीमति स्व० माया देवी पत्नी स्व० श्री धनीराम ने अपने शब्दों के नाम पर बसीयत कप दी है जिनके नाम मुकेश, राखेश, नरेश, उषा, सुरेश के नाम पर की है यह कि अगर इसके अलावा इस मकान से सम्बन्धित दस्तावेज लेकर नगर नियम कार्यालय बल्लभगढ़ में 30 दिन के अन्दर प्रस्तुत करे ताकी इस पर विचार किया जा सके। यह कि मेरा उपरोक्त बयान मेरी पूर्ण जानकारी व मेरे ज्ञान से सही व सत्य है। और मैं अक्षय पाया जाता है तो मैं उसका स्वयं जिम्मेदार रहूँगा।

व्यक्ति स्वयं जिम्मेदार होगा।

साधजनिक सूचना

सामान्य जनता को सूचित किया जाता है कि म/वेएसडब्ल्यू स्टील कोटेड प्रोडक्ट्स लिमिटेड, जिसका कार्यालय प्लॉट नंबर-7 से 12, आईएमटी मार्गल रोड, सेक्टर-6, बावल, रेवाड़ी, हरियाणा में है, को राज्य पर्यावरण प्रभाव आकलन प्राधिकरण (SEIAA), हरियाणा द्वारा पर्यावरण मंजूरी दी गई है, संख्या 55-58, प्रयाटन भवन, सेक्टर-2, पंचकुला, हरियाणा के उनके माहल नंबर IA-J-11011/448/2021-IA-II(IND-I) पत्रांक 25.06.2024 के अनुसार। सामान्य जनता को सूचित किया जाता है कि उनके पर्यावरण मंजूरी पत्र को प्रति राज्य प्रवृत्त नियंत्रण बोर्ड, पंचकुला और राज्य पर्यावरण प्रभाव आकलन प्राधिकरण (SEIAA), पंचकुला, हरियाणा तथा हमारे कार्यालय में उपलब्ध है।

म/वेएसडब्ल्यू स्टील कोटेड प्रोडक्ट्स लिमिटेड रेवाड़ी (हरियाणा)

मैं Sandeep Kumar S/o Sh. Mahabir Singh R/o Village Kareweri, Distt. Sonapat (Haryana) ने शादी हिन्दू रिति रिवाज के अनुसार दिनांक 20.12.2024 को Kavi Sain के साथ दोनों परिवारों की सहमति से Arya Samaj Mandir, Sec.-14, Rohini के सम्पन्न हुई थी और मैंने एक क्रेडिट जिसका नाम Radhima Sain है को साथ में Adopt किया है जो मैंने Marriage deed तैयार करवाई उसमें भी दर्शाया गया है और अब मैं अपनी पत्नी Kavi Sain और पुत्री Radhima Sain को Surname (Title) Change करवाकर अपना Surname (Title) Kavi Chhikara व Radhima Chhikara करवाना चाहता हूँ ताकि मेरी पत्नी और बेटों मेरे Legal Heir बन सकें। Marriage deed

मनीष अरोड़ा (पुत्र), संगीता सचदेवा (पुत्री) हैं। इनके अलावा अन्य वारिसान नहीं हैं।

मैं, ज्योति पत्नी स्व० धर्मपाल निवासी राजीव नगर, रामशाबाद, जिला पलवल, मैंने अपने पुत्र अर्जुन जो मेरे कहने से बाहर है, मारपीट व अभद्र व्यवहार के कारण मैंने इसका अपना तमाम चल-अचल संपत्ति से बेदखल कर दिया है। भविष्य में इससे लेनदेन करने वाला व्यक्ति स्वयं जिम्मेदार होगा।

मैं, प्रेम प्रकाश पुत्र श्री जगमाल सिंह निवासी माजरा श्योरज तह. व जिला रेवाड़ी बयान करता हूँ कि मेरी पुत्री कुशुमलता मेरे व मेरी पत्नी के कहने सुनने से बाहर है जिसे मैं अपनी समस्त चल-अचल संपत्ति से बेदखल करता हूँ। इसके द्वारा किए गए कार्य एवं लेनदेन को यह स्वयं जिम्मेदार होंगे। मेरा व मेरे परिवार का इससे कोई वास्ता नहीं होगा।

हम, टेकचन्द पुत्र प्रभुदयाल व इन्दुबाला पत्नी टेकचन्द निवासी म०न० 0 डी रे 15/1, प्रकाश विहार, पलवल, हमने अपनी पुत्री अनुराधा जो हमारे कहने से बाहर है लड़ाई झगड़ा व अभद्र व्यवहार के कारण हमने इसको अपनी तमाम चल-अचल संपत्ति से बेदखल कर दिया है। भविष्य में इससे लेनदेन करने वाला व्यक्ति स्वयं जिम्मेदार होगा।

मैं, प्यार लाल पुत्र श्री गोरधन निवासी गली नं० 11, यादव नगर रेवाड़ी तहसील व जिला रेवाड़ी, बयान करता हूँ कि मेरा बड़ा पुत्र दीपक व उसकी पत्नी रितु मेरे परिवार के कहने सुनने से बाहर हैं। इसलिए मैं इनको अपनी समस्त चल-अचल संपत्ति से बेदखल करता हूँ। भविष्य में इनके साथ व्यवहार रखने वाला स्वयं जिम्मेदार रहेगा।

मैं, अनिल कुमार पुत्र चेतन निवासी गांव-बाबडोली, जिला रेवाड़ी। मेरे पुत्र दीपेश

बन्म प्रमाण पत्र पर मेरा नाम अति व मेरी पत्नी का नाम सुमन है। गलत है। सही नाम अनिल कुमार सुमन देवी है।

मैं NO-15146469W EX-NK निग्राम कतोपुरी तह० व जिला रेवाड़ी हरियाणा यह कि मैं सर्विस रिकार्ड में मेरी पुत्री का नाम (EITEKA) इतिका गलत दख उसका सही नाम ईशिका (ESHIKA) है।

मैं, निशा पत्नी नं. 3008395 हवलदार बलजीत निवासी गांव-कां जिला महेंद्रगढ़ (हरियाणा) ने अपना नाम निशा चौहान बदलकर निशा तथा अपनी जन्मतिथि 10-07-1989 से बदलकर 14-01-1989 कर ली है। शपथ पत्र संख्या: OBH2025D2, दिनांक:- 08-04-2025 है।

मैं, मुस्तकीम पुत्र मामूर निवासी गांव-धीधराका, तहसील-हथौन जिला-पलवल। मेरे 10वीं व 12वीं व हरियाणा बोर्ड की मार्कसिप में मेरी पिता का नाम Mamura मेरी माता का नाम Sakira है जो गलत है। सही नाम Mamur Shakila है।

मैं, Gourav पुत्र हरगोपाल निवासी गांव-आलदोका, तहसील जिला-नूह (हरियाणा) ने अपना नाम Gourav से बदलकर Gourav रख लिया है।

मैं, अशोक कुमार पुत्र विद्यानंत निवासी गांव-भाकली, जिला रेवाड़ी (हरियाणा)। मेरे बेटे अंशिका के स्कूल रिकार्ड में उसकी माँ का नाम सीमा है। जो गलत है? सही नाम सीमा देवी है।



O/C



Bawal Works : Plot 7-12,
Sector 6, IMT Bawal, Dist. Rewari – 123501
Haryana, India.
CIN : U27100MH1985PLC037346
Phone : +91 1284 271500
FAX : +91 1284 271500
Website : www.jsw.in

JSW/BWL/HR/103/2025
18th July, 2025

To,

The Regional Officer
Haryana State Pollution Control Board
Rewari (HR).

Sub: Annual Return Form V for the year ending 31st March 2025
(Environment Statement)

Dear Sir,

With reference to the above subject, please find enclosed herewith Form V
for the period April 2024 to March 2025 duly completed in all respects.

Kindly acknowledge the receipt

Thanking you,

Yours faithfully,

For JSW Steel Coated Products Limited

For JSW Steel Coated Products Limited

Authorised Signatory



Regd. Office : JSW Centre,
Bandra Kurla Complex,
Bandra (East) Mumbai 400 051

Phone : 022-4286 1000
Fax : 022-4286 3000
Website : www.jsw.in



JSW Steel Coated Products Ltd.
Plot No. 7-12, Sector-6, HSIIDC
Bawal, Haryana-123501
Landline-01284-271500

FORM - V

Environment statement for the financial year ending 31st March 2025

PART – A

(I) JSW STEEL COATED PRODUCTS LIMITED

Plot No: 7-12, Sector-6,
IMT Bawal, Rewari (Haryana)

- (II) Industry category Primary : Manufacturing Colour Coated &
Galvanized Coil & Sheet
- (III) Production Capacity : 300000 MT/Annum
- (IV) Year of establishment : 2005
- (V) Date of the last environmental statement submitted : 2024

PART – B

Water and Raw material consumption

(I) Water consumption : M3/d

Process : 110 KL/Day

Cooling : 120 KL/Day

Domestic : 35 KL/Day

#	Name of Product	Process water consumption per unit of product output	
	Manufacturing of Cold	110 KL/Day	110 KL/Day
	Rolled & galvanized and		
	Colour Coated Sheet		

Submitted by rule 2(b) of the environment (Protection) amendment rule1993 noticed vide GSR 36(E),
dated 22.04.1993

For JSW Steel Coated Products Limited

Authorized Signatory

(II) Raw material consumption :

Name of Raw Material	Name of Products	Consumption of raw material per unit of output	
		During the Previous F.Y	During the Current F.Y
Zinc Alloy		6764 MT	6417 MT
HR Coil		203677 MT	283583 MT
Colour		949 KL	689 KL

Industry may use codes if disclosing details of raw material would violate contractual obligations, otherwise all industries must name the raw material used.

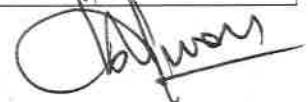
PART – C

Pollution discharged to environment/unit of output.

(Parameter as specified in the consent issued)

#	Pollutants	Qty. of pollutants discharged (Mass/day)	Concentration of pollutants in discharged (Mass/ Volume)	Percent variation prescribed standard reasons
A	Water (ETP Outlet)		pH 7.95 BOD 8.8 COD 84 Oil & Grease ,<3.0 Total Suspended 15 Zn <0.01 Nickel <0.01	
B	Air (In shed CCL Line)		Suspended Particles .566 Sulphur Doioxide 0.025 Nirogen Dioxide 0.057 Carbon monoxide 2.29	

For JSW Steel Coated Products Limited



PART – D

Hazardous Wastage

(As specified under Hazardous wastages/management and handling rules 1989)

Hazardous Wastage	Total Quantity in (MT)	
	During the Previous F.Y	During the Current F.Y
From Process	4031	3837
From Pollution Control facilities	Sent to Authorised Recycler (GEPIL)	Sent to Authorised Recycler (GEPIL)

PART – E

#	Non-Hazardous Wastage	Total Quantity in (Kg)	
		During the Previous F.Y	During the Current F.Y
	From Process	As above	As above
	From Pollution control facilities	Through GEPIL	Through GEPIL
1	Quantity recycled or re-utilized within the unit		
2	Solid		
3	Disposed	Yes	Yes

For JSW Steel Coated Products Limited


Authorized Signatory

PART – F

Please specify the characterizations (In terms of composition of quantum) of Hazardous as wastages solid waste and indicate disposal practice adopted for both these categories of waste.

Disposing the hazardous waste through authorized dealer M/S. Gujrat Enviro Protection & Infrastructure (Haryana) Pvt. Ltd. and other vendors

PART – G

Impact of these pollution abatement measures taken on conservation of natural resources and on the cost of production.

PART – H

Additional measures /investment proposal for environmental protection including abatement of pollution, prevention of pollution.

- **Already have ETP and STP**

PART – I

Any other particulars for improving the quality of the environment.

- **Developed the green belt surrounding the plant**
- **Garden develops and planted in and outside the plant.**

JSW Steel Coated Products Ltd.
Plot No. 7-12, Sector 40, Gurgaon
Bawal, Haryana-122001
Landline: 01292-222222

For JSW Steel Coated Products Limited


Authorized Signatory