MALAYSIA STEEL WORKS (KL) BHD
197101000213 (7878-V)

MASTEEL ESG COMMITMENT (FY2022/2023)

Additional Information for Masteel Sustainability Report FY2022

Masteel is resolute in its dedication to transparency and accountability, exemplified by our commitment to disclosing our nitrogen dioxide (NO_2) emissions as follow

Air Emission (Nitrogen Dioxide,NO_2)		1Q	2Q	3Q	4Q	Total
2020	*Tonnes*	159.66	58.34	366.25	58.16	642.41
2021		62.63	60.70	57.99	60.44	241.76
2022		64.99	67.36	82.69	88.91	303.95
2023		77.96	3.48	-	-	81.44

Nitrogen dioxide (NO_2) is a gaseous air pollutant composed of nitrogen and oxygen and is one of a group of related gases called nitrogen oxides (NO_X)

Masteel is resolute in its dedication to transparency and accountability, exemplified by our commitment to disclosing our Sulfur Dioxide (SO_2) emissions as follow

Air Emission (Sulfur Dioxide,SO_2)		1Q	2Q	3Q	4Q	Total
2020	*Tonnes*	762.29	800.20	748.31	773.85	3,084.65
2021		745.56	779.28	729.18	751.34	3,005.36
2022		557.31	553.71	581.75	579.56	2,272.33
2023		557.83	15.39	-	-	573.22

Sulfur dioxide (SO_2) is a gasesous air pollutant composed of sulfur and oxygen, and it can lead to the formation of other sulfur oxides (SO_X)

Masteel proudly exemplifies a complete absence of contribution to Volatile Organic Compounds (VOCs) emissions.

Air Emission (Volatile Organic Compounds,VOCs)		1Q	2Q	3Q	4Q	Total
2020	*Kilograms*	0	0	0	0	0
2021		0	0	0	0	0
2022		0	0	0	0	0
2023		0	0	-	-	0

Masteel is resolute in its dedication to transparency and accountability, exemplified by our commitment to disclosing our hazardous waste generation as follow

SW 305(Lubricant Oil)		Total
2020	*Tonnes*	33.92
2021		14.13
2022		12.46
2023 (till June)		6.81

SW 306(Spent Hydraulic Oil)		Total
2020	*Tonnes*	3.66
2021		0
2022		0.08
2023 (till Jun)		0

SW 409 (Disposed Container)		Total
2020	*Tonnes*	0
2021		0
2022		0.30
2023 (till Jun)		0.32

SW 410 (Contaminated Rags)		Total
2020	*Tonnes*	4.06
2021		1.67
2022		0.94
2023 (till Jun)		0.12

SW 421 (Mix Waste)		Total
2020	*Tonnes*	0
2021		0
2022		0.56
2023 (till Jun)		0.22

Overall Hazardous Waste		Total
2020	*Tonnes*	41.64
2021		15.80
2022		14.34
2023 (till Jun)		7.47

Masteel is resolute in its dedication to transparency and accountability, exemplified by our commitment to disclosing our non-recycled waste generation as follow

Non-Recycled Waste		Total
2020	*Tonnes*	329.50
2021		310.72
2022		340.44
2023 (till Jun)		165.32

Masteel is resolute in its dedication to transparency and accountability, exemplified by our commitment to disclosing our waste recycled as follow

Recycled Waste (Skull)		Total
2020	Metric Tonnes	3740.55
2021		2867.97
2022		2973.70
2023 (till July)		637.54

Masteel is resolute in its dedication to transparency and accountability, exemplified by our commitment to disclosing our raw material used as follow

2020		EAF	IF	Total
Fesi	MT	419.90	3.33	423.23
SiMn	MT	1490.89	1904.16	3395.05
Coke	MT	3553.43	51.74	3605.17
CaO	MT	8485.69	-	8485.69
			Total	15,909.14

2021		EAF	IF	Total
Fesi	MT	172.03	15.98	188.01
SiMn	MT	577.35	2,837.19	3,414.54
Coke	MT	1,423.46	94.31	1,517.77
CaO	MT	3,436.49	-	3,436.49
			Total	8,556.81

2022		EAF	IF	Total
Fesi	MT	116.23	16.39	132.62
SiMn	MT	355.97	3,771.03	4,127.00
Coke	MT	834.22	77.28	911.50
CaO	MT	2,235.43	-	2,235.43
			Total	7,406.55

2023 (till July)		EAF	IF	Total
Fesi	MT	6.16	22.34	28.50
SiMn	MT	45.52	2,628.12	2,673.64
Coke	MT	58.36	28 .35	86.71
CaO	MT	128.49	-	128.49
			Total	2,917.34

In FY2022, Masteel takes immense pride in maintaining a good record of environmental compliance, consistently ensuring a track record free from any environmental fines or penalties.

Progress against previously set targets to reduce pollution

Targets FY2022	Performance FY2022
To reduce 1% of NOx emission	Achieve 23.68% reduction of NOx emission
To reduce 1% of SOx emission	Achieve 26.14% reduction of SOx emission

Progress against previously set targets to reduce waste

Targets FY2022	Performance FY2022
To reduce 1% of lubricant oil waste	Achieve 11.82% reduction of lubricant oil waste

Progress against previously set target to reduce resource use

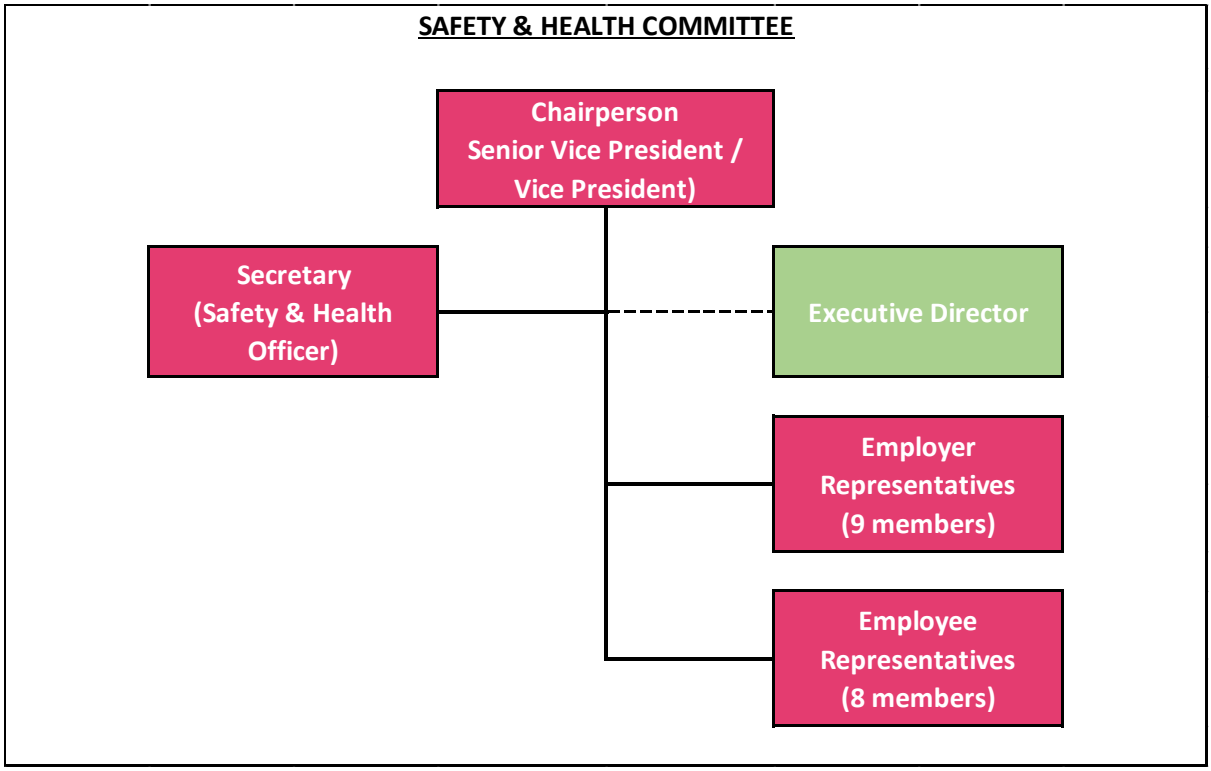
Targets FY2022	Performance FY2022
To achieve 10% reduction in raw material consumption	Achieve 44% reduction in raw material consumption.

Masteel has been certified under ISO14001 for its Petaling Jaya plant as of 2022 which accounts for 50% coverage under this certification.

OSH is a significant aspect of Board and Senior Management's sustainability agenda. Related performance data, incident reports and other information are periodically brought to the Management's attention. Management deliberates on such matters and where necessary, recommends improvements or corrective actions to the present OSH management approach.

All operation sites at Masteel are established with Safety and Health Committee, which are chaired by the Senior Vice President / Vice President and overseen by **Ms Shirley Ng**, who is the **Executive Director** of the Board.

For any unresolved issues from the Safety and Health Committee level, the Executive Director will escalate and discuss the matters during the Board of Director (BOD) meeting. The structure of the Masteel's Safety and Health Committee is as below:



Policies

Current policy at PJ Plant: Safety and Health's Objectives in ISO 45001

i) Zero fatality
ii) Zero compounds from authorities
iii) To ensure that 100% of new employees received safety induction training
iv) To achieve at least 90% participation of Safety and Health Committee meeting

Current policy at BR Plant: Safety and Health's Objectives in ISO 45001

i) To achieve more than 8,000 operating hours without plant shut down due to injury and accident.
ii) Zero fatality case
iii) Not more than 2 cases of the compound from authorities per year
iv) To ensure 100% conduct of safety, and health induction for all new employees within 1 week from the date of reporting to work.
v) To ensure at least 80% attendance for the Safety and Health Committee Meeting

Based on the current Safety and Health Objectives which are in line with ISO45001, Masteel would like to set long-term targets for the next 5 years (from Year 2024- Year 2028) in order to continuously improve, control and prevent accident occurrence at the workplace. These annual targets for the next 5 years are as follows:

i) To achieve more than **8,000** operating hours without plant shut down due to injury and accident.
ii) **Zero fatality** case.
iii) **Zero compound** from authorities on safety-related issues.
iv) To ensure **100%** of new employees received safety and health induction training for all new employees within **2 days** from the date of reporting to work.
v) To achieve at least **95%** participation of the Safety and Health Committee Meeting.

Due diligence for Health and Safety

Masteel's safety and health team has conducted risk assessments for all the existing operations and upcoming/potential projects. This risk assessment has been carried out using the Hazard Identification, Risk Assessment and Risk Control (HIRARC) methodology to assess physical hazards at the workplace. The sample of the HIRARC sheet is attached as per **Safety and Health – Attachment 1.**

Currently, the risk assessment using HIRARC methodology has been applied in Masteel's existing operations, particularly in production facilities such as Electric Arc Furnace (EAF), Induction Furnace (IF) and the upcoming /potential projects such as the High-Speed Bar Project which will be commenced soon.

Health and Safety Certification

In Year 2022, Masteel has been certified with OHSAS 18001/ ISO 45001 for both of its manufacturing facilities at Petaling Jaya and Bukit Raja respectively. This certificate has covered 100% of Masteel's steel making and manufacturing facilities.

Policy with regards to human rights

Masteel upholds its dedication to human rights by aligning with universally acknowledged standards such as the International Bill of Human Rights and the UN Guiding Principles on Business and Human Rights. Our dedication to this policy is rooted in the principles of the International Bill of Human Rights,

which encompasses the Universal Declaration of Human Rights, the International Covenant on Civil and Political Rights, and the International Covenant on Economic, Social and Cultural Rights. Additionally, we draw inspiration from the fundamental rights principles delineated in the International Labour Organization's Declaration on the Fundamental Principles and Rights at Work. The Human Rights policy can be access via https://www.masteel.com.my/group-policies/.

Masteel consistently conducts thorough reviews and evaluations of various risks within our operations, with a particular emphasis on social and human rights risks. These assessments are designed to effectively handle both the positive and negative consequences stemming from our business activities, including those originating from our suppliers and contractors. Our evaluation process is build upon a framework that adheres to the principles and standards outlined in the UN Guiding Principles on Business and Human Rights. Furthermore, these assessments are fully in line with Masteel's Human Rights Policy, which centers on upholding local labour laws, ensuring favorable working conditions, prioritizing employee health and safety, fostering community welfare, and effectively managing our supply chain.

With a steadfast commitment to tackling human rights concerns brought forward by both internal and external stakeholders, Masteel has implemented formal channels for reporting as outlined in the Human Rights Policy and the Grievance Procedures within the Employee Handbook. Furthermore, Masteel places a strong emphasis on maintaining transparency by openly sharing action plans aimed at rectifying human rights issues and the subsequent progress made. These efforts encompass the establishment of robust protocols for identifying and managing potential human rights risks and their impacts throughout our value chain. This involves the creation of explicit policies and standards pertaining to human rights, provision on regular training and awareness initiatives, and the introduction of easily accessible and confidential avenues for reporting concerns and addressing human rights-related issues and grievances.

Masteel's Human Rights Policy places significant emphasis on the provision of an anonymous grievance mechanism. This ensures that any reports or complaints submitted through such procedures are treated confidentially and with the utmost care. The complete details of the Human Rights Policy can be accessed through the following link:–https://www.masteel.com.my/group-policies/.

Outlined in Masteel's Human Rights Policy under the section of "Safeguards," the company is firmly committed to addressing instances where it is found to be responsible for or have contributed to human rights impacts. The grievance management process involves several steps, beginning with informing stakeholders about this complimentary procedure. Subsequently, the process includes the stages of receiving and officially recording grievances, acknowledging the receipt of these grievances, and keeping stakeholders informed about the subsequent steps taken. If necessary, collaborative solutions for resolving grievances with stakeholders are proposed, and the process includes ongoing monitoring of the grievance resolution process.

Furthermore, should there be any grievances from stakeholders, they can directly contact the appointed persons as follows:

- Head of Internal Audit, [Tel no. 03-77811611 & email address: klfung@masteel.com.my]
- Audit Committee Chairman, [email address: rthean@hotmail.com]
- Head of Human Resources [Tel no. 03-77811611 & email address: smithyong@masteel.com.my]

SAFETY AND HEALTH – ATTACHMENT 1 (HIRARC FORM)

MALAYSIA STEEL WORKS (KL) BHD.

BUKIT RAJA MELT SHOP

Masteel MALAYSIA STEEL WORKS (KL) BHD

SHE-FORMAT-001/01

HIRARC FORM

Company :	Malaysia Steel Works (KL) BHD.	**Conducted By :**	
Process / Location :	Production Meltshop	**Date :**	
Approved By :		**Review Date :**	
Date :		**Next Review :**	

	1. Hazard Identification			2. Risk Analysis				3. Risk Control	
No.	**Work Activity**	**Hazard**	**Which Can Cause / Effect**	**Existing Risk Control (if any)**	**Likelihood**	**Severity**	**Risk**	**Recommendation Control Measure**	**PIC (Due Date / status)**
1	Furnace Area	Heat	Skin Burn, Bodily Injury	1. Access to authorized personnel 2. Posting of safety signage 3. Wear PPE (protective cloth/face shield/safety helmet/safety shove/heat resistant glove) 4. Establish SOP	2	3	6	1. Usage of Aluminized fire suit	
		Expose to hot item			2	4	8		
		Flame			2	3	6		
		Fall from height	Bodily injury	Working platform & guard rails	1	4	4		
2	Charging Scrap into Vibration Scrap Car	Sharp edges	Cut on body parts	1. Wear Glove 2. Wear Ear Plug/ Ear Muff 3. Fix the quntity of scrap metal to be loaded 4. Training for involved staff	2	3	6		
		Fall of the scrap item	Bodily injury		2	2	4		
		Runoff Cart	Bodily Injury	Controlled speed, railing & stopper	1	4	4		
3	Inspecting raw material	Material containing contaminants may trigger a violant raction when added to the molten metal	Skin Burn, Bodily Injury due to explosion/fire	1. Inspecting materials to be introduced to molten metal. Ensure it is free from : - Moisture - Excessive grease oil - Corroded or oxidised metal - Chemical or unknown substance 2. Quarantining contaminated material until it has been cleaned	3	4	12		
		Sharp edges	Cut on hand	Wear PPE (Glove)	2	3	6		
		Dust	Respiratory disease	Wear PPE (Respiratory Protective Equipment)	2	2	4		
		Noise	Hearing Impairement	Wear PPE (Wear Eear Plug)	2	2	4		

4	Load raw materials to scrap car using Overhaed Travelling Crane (OTC)	Falling load	Bodily injury, Death	1. Ensure maintenance program for OTC 2. OTC registered with DOSH and issued with PMA 3. Only authorized and trained personel to operate the OTC (Trained Operator List & Training Record) 4. SOP or Work Instruction for OTC operation	3	4	12		
5	Charging metal into furnace	Exposure to dust	Respiratory disease	1. Install Bag filter System to capture the dust, preventive maintenance 2. Restricting worker access to process areas 3. Not allowing eating, drinking & smoking at work areas 4. Regular checking for suction systems 5. Carry out chemical exposure monitoring & health monitoring every 5 years 6. Wear Respiratory Protective Equipment	2	2	4		
		Heat	Heat Stress	1. Acclimatisation 2. Work in safe distance 3. Provide control room with air conditioner 4. Supply water dispenser 5. Wear heat reflective clothing & industrial face shield	3	2	6		
		Noise	Hearing Impairment, temporary or permanent hearing loss and difficulties in communication	1. Conduct noise mapping / zoning 2. Conduct audiometric testing 3. Use PPE (ear plug) 4. Hearing conservation training	2	2	4		
		Ergonomic	Uncomfortable body posture	1. Work rotation	2	2	4		
		Contact with molten steel	Skin Burn	1. Use automation task (robotic arm) 2. Maintenance Record of machinery	3	2	6		
6	Removal of slag	Radiant heat	Heat Stress	1. Ensuring slag pot are clean and dry before removal of slag 2. Using walkie talkie to alert/inform when deslagging process 3. Using water to decrease temperature of slag before forklift start removing 3. Ensuring forklifts used in slag pot removal operations have protective screens fitted to the driver's cabin 4. Wear PPE	2	2	4		
		Molten slag	Skin burn, Bodily injury		3	3	9		

7	Ladle and Ladle Car	Accidental Tapping	Bodily Injured, Skin Burn	1. Ensuring ladles is stable before tapping to avoid accidently tipping. 2. Ensuring ladle transported by ladle car are stable 3. Ensuring ladles are not overfilled 4. Securing stopper operating devices before transport	3	3	9		
		Ladle Leaking	Skin burn, Bodily injury	1. Ladle should have refractory coating and are preheated before use 2. Ladle life must be recorded 3. Ladle condition must be check daily to record condition and thickness of refractory before use	1	4	4	1. Ensure the ladle life recording made accurately by engineers	
8	Tapping	Heat	Heat Stress	1. Supervise worker work in safe distance & designated area before process start 2. Job rotations	3	3	9		
		Molten metal	Skin burn, Bodily injury	1. Supervise worker work in safe distance before process start 2. Using walkie talkie to alert/inform when tapping process 3. Supervise that ladles should be fitted to ladle car before tapping and not tilted 4. Wear PPE - alumizied fire suit	2	3	6		
9	Moving molten metal	Contact with spilling molten metal	Bodily injury, Skin burn	1. Using walkie talkie to alert/inform when movement of molten steel when tapping process 2. Preparing safe distance of ladle car route so personnel not required to be in the area are not near molten metal when it is moving 3. Using mechanical aids where possible to transport, position and pour molten metal 4. Supervise the route used to transport molten metal is marked, as short as possible, and clear of other people and objects 5. Supervise workers in the area are notified when molten metal is being moved e.g. by flashing lights or horns 6. Wear necessary PPE	2	4	8	1. Crane operator must sound horn when moving ladle fill with molten metal especially in a busy area 2. Signages should be placed to create awareness among workers in that area	
10	Canopy Suction	Dust & Unwanted Gas	Respiratory Disease	1. Install bag filter system 2. Preventive maintenance 3. Display warning signage 4. Wear respiratory protective equipment	2	2	4		

11	Moving ladle with/without molten steel to Casting using Overhaed Travelling Crane (OTC	Hot Ladle Heavy ladle	Skin burn, Bodily injury	1. Ensure maintenance program for OTC 2. OTC registered with DOSH and issued with PMA 4. Only authorized and trained personel to operate the OTC (Trained Operator List & Training Record) 5. SOP or Work Instruction for OTC operation 6. Supervise that workers in the area are notified when molten metal is being moved by using horn	1	4	4		
12	Casting	Molten Metal splash out	Bodily Injury	1. Wear complete PPE 2. Limit exposure time per shift to ensure worker remain alert 3. Alarms around working area if abnormality found	3	3	9		
		Flame/Sparks	Skin Burn	1. Cooling fan provided to push away the flame 2. Aluminized fire suit provided to workers	4	3	12	1. Training must be provided to worker to ensure they are aware of the risk	
		Heat	Heat Stress	1. Job rotation, limit exposure time 2. Warning signs for hot surfaces	2	2	4		
		Fume	Chronic Respiratory Disease	Wear PPE (Respiratory Protective Equipment) - face sheild/face mask/respirators	2	3	6		
13	Clean up metal spill	Heat	Heat Stress	1. Cool down with water before cleaning up 2. Job rotation	2	2	4		
		Dust	Chronic Respiratory Disease	Wear Mask /respirator during cleaning	2	3	6		
		Heavy Load	Bodily Injury	1. Ensure maintenance program for OTC 2. OTC registered with DOSH and issued with PMA 4. Only authorized and trained personel to operate the OTC (Trained Operator List & Training Record) 5. SOP or Work Instruction for OTC operation 6. Supervise that workers in the area are notified when molten metal is being moved by using horn	1	4	4		
14	Storing billet	Manual Handling	Body injury	1. Ensure maintenance program for OTC 2. OTC registered with DOSH and issued with PMA 3. Only authorized and trained personel to operate the OTC (Trained Operator List & Training Record)	2	2	4		
15	Climbing Stairs	Slippery stairs	Body injury	1. Clear from tripping hazards and obstacles 2. Use Safety shoes to minimal slip risk	2	3	6		
		Object on Stairs			2	3	6		
16	Setup Control Panel (monitor buttons, horn, emergency stop)	Machine malfunction	Body injury	1. Ensure maintenance program for OTC 2. OTC registered with DOSH and issued with PMA 3. Only authorized and trained personnel to operate the OTC (Trained Operator List & Training Record) 4. SOP or Work Instruction for OTC Operation 5. Supervise workers in the area are notified when OC start moving by using walkie-talkie	2	4	8		

17	Lifting Billet using Overhead Travelling Crane (OTC)	Heavy Load	Body injury	1. Ensure no people working nearby crane area while it operates 2. Ensure there are borders/sheild inside crane workspace area. 3. Supervise that the workers in the area are notified when OC start moving by using walkie-talkie	3	4	12		
		Long Billet	Body injury						
		Hot Billet	Skin Burn, Body Injury						
18	Transferring Billet from Cooling Bed to Storage Area	Machine malfunction (magnet)	Body injury	1. Ensure no people working nearby crane area while it operates 2. Ensure there are borders/sheild inside crane workspace area. 3. Supervise that the workers in the area are notified when OC start moving by using walkie-talkie	3	4	12		
		Heavy Load							
		Long Billet							
		Falling load							
19	Transferring Billet from Cooling Bed to Storage Area	Machine malfunction (magnet)	Body injury	1. Ensure no people working nearby crane area while it operates 2. Ensure there are borders/sheild inside crane workspace area. 3. Supervise that the workers in the area are notified when OC start moving by using walkie-talkie	3	4	12		
		Heavy Load							
		Long Billet							
		Falling load							