



Fair Magnet Standard – Version 1.0

The Fair Magnet Standard (FMS) establishes the minimum and progressive requirements for social, environmental, and ethical performance in the production and trade of permanent magnets.

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Table of Contents

1. Preface
2. 1. Standard Overview
3. 2. Objectives & Principles
4. 3. Scope & Eligibility
5. 4. Governance & Stakeholders
6. 5. Assurance Model
7. 6. Conformity Assessment & Grading
8. 7. Sanctions & Appeals
9. 8. Claims & Labelling
10. 9. Data, Monitoring & Transparency
11. 10. Alignment & References
12. 11. Definitions
13. 12. Auditing Criteria (Backbone)
14. 13. Audit Process Annexes
15. Annex A: Fair Magnet Audit Criteria (Condensed Verbatim Version)
16. Annex A2: Non-Conformity Grading Matrix
17. Annex A3: Corrective Action Plan Template
18. Annex A4: Pre-Qualification Training Contents



Preface and Background

Permanent magnets made from rare earth elements are indispensable to modern technology — powering electric vehicles, wind turbines, and countless electronic devices. Yet their production is concentrated in complex supply chains that often lack transparency and face significant social and environmental challenges. In China, where most rare earth magnets are manufactured, factories must manage high energy use, fine dust exposure, plating emissions, and waste treatment under increasing scrutiny from global markets and regulators.

Fair Magnet e.V. is a non-profit association registered in Germany that now coordinates the Fair Magnet certification scheme. The association does not act as a manufacturer, trader, or commercial intermediary, but operates an audit-based certification system with clearly defined requirements, independent assessments, and sanction mechanisms. Participation in the Fair Magnet Standard is voluntary and based on contractual arrangements between Fair Magnet e.V., Fair Magnet Partners, and participating suppliers. Certification results are based on audit outcomes. The scheme itself originated from a co-financed developPPP project supported by the Deutsche Entwicklungs-Gesellschaft (DEG) on behalf of the Federal Ministry for Economic Cooperation and Development (BMZ). Building on this foundation, Fair Magnet e.V. continues to manage and expand the initiative with a focus on transparency, credible assurance, and supplier support.

The Fair Magnet Standard (FMS) defines clear, audit-based requirements tailored to the realities of magnet production, verified by independent third-party auditors and strengthened through local partnerships in China. It enables factories to progress step by step toward higher environmental, social, and safety performance, while importers gain a credible framework to demonstrate due diligence and responsible sourcing. FM Suppliers respect all applicable national laws and regulations and the company ensures that all relevant and up-to-date permits are held.

By linking producers and buyers in a cooperative, improvement-oriented process, Fair Magnet contributes to a sustainable future for the global magnet value chain — aligning technological innovation with fair, safe, and environmentally sound production conditions.

1. Standard Overview

- Name: Fair Magnet Standard (FMS)
- Version: v1.0
- Effective date: TBD
- Owner/Secretariat: Fair Magnet e.V.
- Languages: English (authoritative)
- Applies to: Finished magnets and assemblies within defined production chain



- Geographic scope: Currently limited to China

2. Objectives & Principles

- Ensure fair, safe and environmentally sound production of permanent magnets.
- Promote transparency, decent working conditions, and legal compliance in supply chains.
- Build continuous improvement and accountability through regular third-party audits.
- Strengthen cooperation between Fair Magnet Partners and manufacturers. (FM Suppliers)
- Adopt responsible purchasing practices: Adopting responsible purchasing practices is essential for ensuring ethical and sustainable supply chains. FM Partners strive for mutually beneficial and long-term cooperation with their suppliers and as such respect:
 - a) Timely Order Placement: Place orders well in advance to avoid creating pressure on suppliers, reducing the need for overtime and ensuring fair working conditions, b) Transparency: Maintain transparency regarding certification requirements and timelines, c) Fair Pricing: Offer fair prices that reflect the true cost of ethical production, including fair wages for workers, d) Support Certified long-term Suppliers: Prioritize long-term suppliers and reduce open competition for orders whenever possible and e) Engage with other Stakeholders: Collaborate with Stakeholders and NGOs to stay informed about best practices and emerging issues in ethical sourcing.

3. Scope & Eligibility

- Covers manufacturing, assembling, and trading of magnets (excludes mining and smelting).
- Legal entities within China producing NdFeB and SmCo magnets; associated assemblers and traders.
- All magnet types and related coatings, adhesives, and assemblies.
- Only registered supply chains and audited production steps are considered within the scope of certification. Certification statements apply exclusively to the audited entities and processes.

4. Governance & Stakeholders

- Governing body: Fair Magnet e.V. Association (FMA) — German non-profit association.
- Accreditation body: Fair Magnet e.V. (scheme owner).
- Stakeholders: FM Partners (importers), manufacturers, auditors, civil society experts.



- Revision cycle: Every 3 years or earlier if essential updates are needed. Phase 1 internal draft confirmed and approved by e.V./Association members. Phase 2 public consultation via online published info and email address.
- Fair Magnet Partners (importers), which intend to qualify their suppliers have to pay an annual fee to finance services of Fair Magnet e.V. including advice, monitoring and general coordination. Further fees are incurred when booking pre-qualification training, baseline audits and certification audits.
- The payment of fees finances coordination, monitoring, advisory, and training-related services of Fair Magnet e.V. and does not imply entitlement to certification, a specific performance level, or audit outcomes.

5. Assurance Model

- Mandatory 3rd-party audits by accredited companies with engineering expertise.
- Pre-Qualification Training → Baseline audit → Corrective Action → Certification audit.
- Validity: 3 years.
- All linked companies/sites must be covered if production steps are split.
- Audits are conducted by recognized audit service providers approved by Fair Magnet e.V. Audit results remain the sole basis for certification decisions.

6. Conformity Assessment & Grading

- Finding categories: Essentials (E), Major, Minor, Observation.
- E: ESSENTIAL. Fundamental requirement; absence leads to failure.
- Major: Serious deviation, requires CAP.
- Minor: Improvement potential, non-systemic deviation.
- Reference: Annex A2 – Non-Conformity Grading Matrix.
- Levels: Baseline Audit/Tested Participant – Bronze, Silver (Threshold score equal or above 3.00), Gold, Platin

7. Sanctions & Appeals

- Sanction ladder: Warning → Suspension → Withdrawal.
- Appeals through Fair Magnet e.V.; escalation path defined. Any stakeholder may submit a complaint or appeal concerning compliance with the Fair Magnet Standard, including against Fair Magnet e.V., Fair Magnet Partners, suppliers, or audit processes.
- Fair Magnet e.V. handles grievances when unresolved.



8. Claims & Labelling

- B2B claims currently; B2C planned.
- Label usage only after certification and approval by FMA.
- Traceability through documentation and supplier linkage.

9. Data, Evaluation, Monitoring & Transparency

- All audit data and CAPs forwarded to FMA for monitoring.
- Summary results may be published; individual reports remain confidential.
- Certified Fair Magnet Suppliers are not publicly listed by name in order to prevent misuse of certification results, misrepresentation, or free-riding outside registered supply chains. Instead, Fair Magnet e.V. publishes an anonymized and codified overview of certified suppliers on its website, indicating certification status, grading level, and audit validity period without disclosing supplier identities.
- The impact of the FM scheme will be evaluated on an annual basis on the basis of up to 5 fitting SDG2030 criteria.
- GDPR compliant.

10. Alignment & References

- ILO Core Conventions
- UN Guiding Principles on Business and Human Rights (UNGPR)
- OECD Due Diligence Guidance
- National law of China

11. Definitions

- Essential (E): Critical requirement, failure results in non-compliance.
- CAP: Corrective Action Plan.
- FM Partner: Importer coordinating and initiating audits.
- FM Supplier: Exporter, manufacturer, assembler etc.

12. Auditing Criteria (Backbone)

The following provides a summarized view of the Fair Magnet Audit Criteria. For full details, refer to Annex A – Fair Magnet Audit Criteria (Condensed Verbatim Version).

Management System

- Leadership
- Risk Evaluation



- Target Indicators
- Organizational Structure
- Laws & Regulations

Business Ethics

- Fair Competition
- Whistleblowing & Protection
- Conflict Minerals
- Trade Secrets
- Privacy

Labour Rights

- Child Labour
- Forced Labour
- Freedom of Association
- Anti-Discrimination
- Working Hours
- Wages

Environmental Protection

- EIA
- Water & Wastewater
- Air Emissions
- Hazardous Waste
- Energy & Emergency Response

Occupational Health

- Risk Control
- PPE & Training
- Monitoring
- Medical Checks
- Special Protection

Production Safety

- Safety Design
- Hazard Management
- Fire & Chemical Safety
- Electrical & Machinery Safety
- Emergency Preparedness



13. Audit Process Annexes

Annex A: Fair Magnet Audit Criteria (Full Set V1, Rev 2024) + Summary Essentials

Annex A2: Non-Conformity Grading Matrix

Annex A3: Corrective Action Plan Template

Annex A4: Pre-Qualification Training Contents Summary



Fair Magnet Audit Criteria – Annex A

V1, Revision 2024 “E” = Essential Criterion.

1. Management System

Leadership

- 1.1.1 Approve and announce the Factory’s CSR (EHS) policy and vision.
- 1.1.2 Announce the CSR (EHS) commitments of all levels of management and incorporate them into performance assessment.
- 1.1.3 Ensure financial resources are allocated for CSR (EHS) activities.

Risk Evaluation

- 1.2.1 Identify the Factory’s CSR (EHS) risks.
- 1.2.2 Evaluate risk levels and likelihood of CSR (EHS).
- 1.2.3 Establish and implement the Factory’s CSR (EHS) risk control measures.
- 1.2.4 Review CSR (EHS) risk register regularly.

Target Indicators

- 1.3.1 Establish measurable CSR (EHS) targets and KPIs.
- 1.3.2 Include positive and lagging indicators.
- 1.3.3 Assign accountability for achieving goals.
- 1.3.4 Establish a reward and penalty procedure for CSR (EHS) performance.

Organizational Structure

- 1.4.1 Create a CSR (EHS) coordination committee and hold meetings.
- 1.4.2 Establish CSR (EHS) daily management organization.
- 1.4.3 Assign full-time/part-time CSR (EHS) personnel.
- 1.4.4 Appoint employee representatives for CSR (EHS).

Laws and Regulations

- 1.5.1 Identify and establish the list of laws, regulations and standards applicable to CSR (EHS).
- 1.5.2 Update regulatory list regularly.
- 1.5.3 Review the compliance of CSR (EHS) laws and regulations on a regular basis, and prepare reports. **(E)**
- 1.5.4 Communicate legal requirements to relevant departments.
- 1.5.5 Rectify any legal incompliances promptly.



Regulations and Rules

- 1.6.1 Establish regulations, rules and procedures in relation to CSR (EHS) management.
- 1.6.2 Periodically evaluate and update internal rules.
- 1.6.3 Conduct employee trainings on CSR (EHS) regulations and rules.
- 1.6.4 Involve employees in reviewing CSR (EHS) regulations.
- 1.6.5 Assign a department to announce, update, recycle and file regulations, rules and other documents and records.

Communication and Participation

- 1.7.1 Establish internal/external CSR (EHS) communication mechanisms.
- 1.7.2 Keep communication records.
- 1.7.3 Provide timely feedback on CSR (EHS) concerns.
- 1.7.4 Encourage employee participation and recognition in CSR (EHS) management.

Education and Training

- 1.8.1 Identify competency requirements for CSR (EHS) roles.
- 1.8.2 Determine training needs.
- 1.8.3 Assign a qualified external agency to provide trainings for employees with certificate requirements.
- 1.8.4 Establish internal CSR (EHS) training system.
- 1.8.5 Promote CSR (EHS) awareness through communication materials.

Management Review & Continuous Improvement

- 1.9.1 Conduct annual internal CSR (EHS) reviews.
 - 1.9.2 Receive regular external CSR (EHS) audits.
 - 1.9.3 Address findings from internal/external reviews.
 - 1.9.4 Establish annual CSR (EHS) management review system.
 - 1.9.5 Evaluate the performance, internal and external reviews and legal conformity deficiencies of the Factory's CSR (EHS) management.
 - 1.9.6 Execute and verify the improvement measures after reviews on CSR (EHS) management.
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2. Business Ethics

Fair Competition

- 2.1.1 Establish and announce anti-unfair competition regulations. **(E)**
- 2.1.2 Define gifting and business entertainment policies.



Reporting and Protection

- 2.2.1 Establish whistleblowing and reporting channels. **(E)**
- 2.2.2 Encourage employees to report violations.
- 2.2.3 Protect whistleblowers from retaliation.
- 2.2.4 Notify reporting employees of investigation results.

Conflict Minerals

- 2.3.1 Conduct compliance investigation according to the requirement of OECD, EICC and other standard to make sure all mine material including gold, tin, tantalum and tungsten must NOT come from conflict area and countries which defined by related standard such as Democratic Republic of Congo, Uganda, etc. **(E)**

Trade Secrets

- 2.4.1 Establish regulations to protect factory clients and supplier trade secrets. **(E)**
- 2.4.2 Communicate confidentiality rules to relevant staff.

Privacy

- 2.5.1 Comply with data privacy and information security laws. **(E)**
-

3. Labour Rights

Child Labour

- 3.1.1 Prohibit employment of child workers. **(E)**
- 3.1.2 Strictly control the use of minor workers and establish a list of minor workers.
- 3.1.3 Restrict minor work to max 8h/day.
- 3.1.4 Prohibit night shifts for minors.
- 3.1.5 Exclude minors from hazardous posts.
- 3.1.6 The Company shall never put children or minor workers in unsafe or dangerous environment bad for their physical and mental health and development in or outside of the workplace. **(E)**

Forced Labour

- 3.2.1 Prohibit forced and bonded labour. **(E)**
- 3.2.2 Forbid deposit payments or ID retention. **(E)**
- 3.2.3 Prohibit withholding of pay to enforce work. The Company shall not withhold partial pay, welfare, property or certificates of workers so as to force continuous working. **(E)**



3.2.4 Ensure employees can leave after regular hours. **(E)**

3.2.5 Allow contract termination with reasonable notice. **(E)**

Freedom of Association & Collective Bargaining

3.3.1 Employees are entitled to establish, join and organize a Trade Union freely and conduct collective bargaining with the Company on behalf of themselves.

3.3.2 Prohibit retaliation for union activity.

3.3.3 Avoid interference in union management.

3.3.4 When the workers' rights of freedom of association and collective bargaining are limited by law, the Company shall allow the workers to choose their own worker representatives.

3.3.5 Ensure worker representatives can communicate with employees.

3.3.6 When meetings are held to discuss issues concerning wages, benefits, labour safety and health, working hours, holiday and leave, protection of female workers and social insurance that relate to vital interest of workers, trade union representatives must be present and meeting attendance records shall be kept.

Anti-Discrimination

3.4.1 Prohibit discrimination. The Factory shall hold no discrimination against employees because of race, nationality or social status, social class, descent, religion, disability, gender, sexual orientation, family responsibility, marital status, member of Trade Union, political view, age or other reasons. **(E)**

3.4.2 Respect employees' beliefs and customs.

3.4.3 No threatening, maltreating and exploiting behaviors and forced sexual harassment behaviors on employees, posturally, verbally or physically, are allowed in any place. **(E)**

3.4.4 Ban pregnancy or virginity testing. **(E)**

Punitive Measures

3.5.1 Forbid corporal punishment or mental/physical coercion. The Factory shall treat all employees with dignity and respect, and shall not engage in or support the use of corporal punishment, mental or physical coercion, and verbal abuse, or treat the workers brutally and inhumanely. **(E)**

Working Hours

3.6.1 Comply with legal limits (max 48h regular + 12h overtime). The Factory shall abide by the regulations in relation to working hours and public holidays of applicable laws and industrial standards. A standard work week (excluding overtime hours) shall not exceed forty eight hours according to law. **(E)**

3.6.2 Employees shall at least have one day off after working for six days in a row.

3.6.3 Temporary overtime hours out of business need shall be agreed on by



collective bargaining upon free negotiations by the Trade Union.

3.6.4 Overtime must be voluntary. Cap overtime ≤ 36 h/month.

Remuneration

3.7.1 Meet or exceed minimum wage requirements. **(E)**

3.7.2 Forbid punitive deductions. **(E)**

3.7.3 Provide written pay statements on regular basis.

3.7.4 All overtime hours shall be paid in overtime allowance according to state regulations.

3.7.5 Apply legal wages to all worker types. The remuneration for laborers and interns employed by the Factory shall comply with related regulations.

Grievance Mechanism

3.8.1 Provide secure, confidential grievance channels for all employees.

4. Environmental Protection

Environmental Impact Assessment

4.1.1 Establish environmental impact assessment management system for new, reconstruction and expansion projects. **(E)**

4.1.2 Acquire approval on environmental impact assessment of new, reconstruction and expansion projects. **(E)**

Construction & Project Controls

4.2.1 Establish “Three Simultaneous” management policy for new, reconstruction and expansion projects.

4.2.2 Acquire approval on trial production of new, reconstruction and expansion projects.

4.2.3 Pass completion acceptance inspection of new, reconstruction and expansion projects. **(E)**

4.2.4 Obtain Pollutant Discharge Permit as required, declare pollutant discharge as required and pay pollutant discharge fee. **(E)**

Equipment and Facility Management

4.3.1 Establish the inspection, repair and maintenance management system for equipment and facilities.

4.3.2 Establish the operation ledger and work out the inspection (maintenance) plan of equipment and facilities.



- 4.3.3 Keep operation records and inspection evidence.
- 4.3.4 No deactivation of environmental facilities without permission.

Water & Wastewater

- 4.4.1 Establish water utilization and waste water management system, define the responsible department for water utilization and waste water management.
- 4.4.2 Set the target indicators of water quota and waste water discharge.
- 4.4.3 Verify water utilization and conduct water balance tests on a regular basis.
- 4.4.4 Establish the List of Waste Water Discharge.
- 4.4.5 Monitor waste water discharge at least once a year, conduct compliance evaluation against national standards and keep documents. **(E)**

Soil Protection

- 4.5.1 Establish a system for the prevention and control of soil pollution risks and harmful substances in the soil.
- 4.5.2 Assign responsible person for soil protection.

Waste Gas

- 4.6.1 Establish waste gas management system, define the responsible department for waste gas management.
- 4.6.2 Set the target indicators of waste gas discharge.
- 4.6.3 Establish the List of Waste Gas Discharge.
- 4.6.4 Monitor waste gas discharge at least once a year, conduct compliance evaluation against national standards and keep documents. **(E)**

Noise

- 4.7.1 Establish noise management system, define the responsible department for noise management.
- 4.7.2 Set the target indicators of noise emissions.
- 4.7.3 Establish the List of Noise Emissions.
- 4.7.4 Monitor noise emissions at least once a year, conduct compliance evaluation against national standards and keep documents. **(E)**

Solid & Hazardous Waste

- 4.8.1 Establish solid waste and hazardous waste management system, define the responsible department for solid waste and hazardous waste management.
- 4.8.2 Set the target indicators of solid waste and hazardous waste discharge.
- 4.8.3 Establish the List of Solid Waste and Hazardous Waste Sources.
- 4.8.4 Establish the List of Solid Waste and Hazardous Waste Disposal Service Providers.



4.8.5 Transfer and dispose hazardous wastes as required by law and keep records.
(E)

Hazardous Chemicals

- 4.9.1 Establish hazardous chemical management system.
- 4.9.2 Establish the List of Hazardous Chemicals.
- 4.9.3 Establish the approval process for new chemical introduction.
- 4.9.4 Establish and register the List of Environmental Information of Hazardous Chemicals.

Disclosure, Energy, and Emergency

- 4.10.1 Establish environmental information disclosure system.
- 4.10.2 Disclosure company environmental information as required.

Energy Management

- 4.11.1 Establish energy management system.
- 4.11.2 Establish energy ledger and analyse energy statistics.
- 4.11.3 Establish energy management targets and conduct assessment.
- 4.11.4 Implement energy management projects and assessing energy saving effect.

Emergency Response

- 4.12.1 Establish and file the Environmental Accident Emergency Plan.
- 4.12.2 Establish and conduct trainings on the Environmental Accident Emergency Team.
- 4.12.3 Equip environmental accident response facilities and devices and store emergency supplies.
- 4.12.4 Conduct regular inspections, repair and maintenance on the emergency facilities, devices and supplies to ensure that they are intact and reliable.
- 4.12.5 Conduct drills on the Environmental Accident Emergency Plan on a regular basis and evaluate the drill results.
- 4.12.6 Immediately initiate the related Emergency Plan after an Environmental Accident and handle it proactively.
- 4.12.7 Review and revise the Environmental Accident Emergency Plan on a regular basis, after drills and emergency responses in particular.

Accident Management

- 4.13.1 Establish accident management system and define the formats and forms of reports, investigations, statistics and analysis, reviews and written reports.
- 4.13.2 Persons in charge or their agents shall immediately arrive at the scene after



the accident, organize rescue activities and adopt effective measures to keep the accident under control.

4.13.3 Timely report to superior units and related government departments according to regulations, protect the accident scene and related evidences.

4.13.4 Arrange an accident investigation team or work with government administrative departments to investigate and handle the accident, and keep related records.

4.13.5 Establish correction and prevention measures for environmental accidents and keep track of how they are implemented.

5. Occupational Health

Pre-Evaluation & Facilities

5.1.1 Conduct Occupational Health Pre-evaluation on new, reconstruction and expansion projects with occupational risks. **(E)**

5.1.2 Acquire approval on Occupational Hazard Pre-evaluation on new, reconstruction and expansion projects. **(E)**

Three Simultaneous Policy of Occupational Health Facilities

5.2.1 Establish “Three Simultaneous” management policy for occupational health facilities of new, reconstruction and expansion projects.

5.2.2 Ensure compliant design and acceptance inspection.

5.2.3 Provide safe workplace layout and hazard separation. Provide the employees with working environment and conditions in compliance with occupational health requirements as required: (1) The production layout is reasonably designed, with hazardous operations separated from non-hazardous operations; (2) The workplace is separated from the living place and is not used for living; (3) Effective protection facilities in line with occupational hazard prevention and control are in place; (4) Occupational hazard intensity or concentration is in compliance with national standards and industrial standards.

5.2.4 Conduct completion acceptance inspection on occupational health facilities for new, reconstruction and expansion projects.

5.2.5 Obtain approvals before trial production.

5.2.6 Conduct and acquire approval on or file Occupational Hazard Control



Evaluation on new, reconstruction and expansion projects. **(E)**

5.2.7 Declare occupational hazard projects as required. **(E)**

OSH Facility Management

5.3.1 Establish inspection, repair and maintenance management system for equipment and facilities.

5.3.2 Keep ledgers and inspection records.

5.3.3 Conduct inspections on related equipment, facilities, instruments and tools, file and keep related documents.

5.3.4 No disuse of occupational hazard protection equipment and facilities without permission.

Occupational Risk Notification & Signage

5.4.1 Occupational risk posts shall be notified in the labor contract.. **(E)**

5.4.2 Occupational Hazard Notification Card shall be posted on occupational risk posts.

5.4.3 Provide Chemical MSDS in Chinese for employees at chemical related occupational risk posts.

5.4.4 Warning labels shall be prominently put on production equipment and facilities with occupational risks.

5.4.5 Establish a complete Standard Operating Procedure of occupational risk posts, notify post risks and prevention measures.

5.4.6 Establish a complete Standard Operating Procedure of occupational risk posts, notify post risks and prevention measures.

High Risk Operation

5.5.1 All dust-generating equipment and dust source points shall be tightly sealed and dust removal systems shall be equipped.

5.5.2 Mechanical and automated and more tightly sealed operations shall be considered for production processes and equipment generating dust and poisonous substance to prevent direct operations. Ventilation measures shall also be adopted according to production processes.

5.5.3 Workplaces generating dust, poisonous substance and other hazardous substances shall be equipped with floor and wall washing facilities.

5.5.4 Workplaces generating dust, poisonous substance and other hazardous substances shall be equipped with floor and wall washing facilities.

5.5.5 Effective measures shall be adopted for sealed radiation sources in accordance with dosage intensity, exposure time and distance from radiation sources.



Prohibition and PPE

5.6.1 Prohibit unsafe or outdated equipment.

5.6.2 Prohibit the transfer of occupational risk operations to units unequipped with occupational health facilities.

PPE

5.7.1 Establish regulations in regard to the procurement, issuance and use of personal protection equipment, including labour dispatch workers and temporary staff.

5.7.2 Based on a professional hazard assessment, equip proper personal protection equipment in accordance with the occupational risk factors of the posts and working environment.

5.7.3 Personal protection equipment shall be stored in safe, easily accessible and fixed places, kept by specially-appointed persons, calibrated and maintained on a regular basis.

5.7.4 The Factory shall conduct trainings in respect of wearing personal protection equipment on related employees.

5.7.5 The Factory shall urge and standardize the correct wearing of personal protection equipment of employees.

5.7.6 Purchase PPE with traceability markings.

Monitoring & Evaluation

5.8.1 Identify and establish the List of Factory Occupational Risk Factors.

5.8.2 Entrust a qualified unit to monitor the occupational risk factors in the operating environment every year.

5.8.3 Publish the monitoring results of the operating environment.

5.8.4 The test results of occupational risk factors in the Factory's operating environment shall comply with the national requirements on exposure standards.

(E)

5.8.5 Establish the List of Posts with Limit-exceeding Occupational Risk Factors, and implement improvement measures.

5.8.6 The Factory shall entrust a qualified unit to evaluate the status quo of occupational risks every three years.

5.8.7 Timely improve the problems found in the evaluation of the status quo of occupational risks.

Emergency Management

5.9.1 Establish the Occupational Hazard Emergency Plan, conduct drills, reviews and revisions on a regular basis.

5.9.2 Appoint occupational risk emergency rescuers and conduct trainings and drills



on a regular basis.

5.9.3 Alarm devices and on-site first-aid supplies and necessary emergency shelter areas shall be equipped in poisonous and hazardous workplaces with acute occupational risks.

5.9.4 Conduct regular repair and maintenance on on-site first-aid supplies, equipment and protective equipment, and verify their performance on a regular basis so as to ensure reliability and effectiveness in case of accidents.

5.9.5 Immediately initiate the emergency plan, evacuate the personnel, control and eliminate the hazard factors in the event of occupational hazard accidents.

5.9.6 Immediately initiate the emergency plan, evacuate the personnel, control and eliminate the hazard factors in the event of occupational hazard accidents.

Accident Management

5.10.1 Establish occupational health accident management system, and define related reports, investigations, statistics and other details..

5.10.2 Timely report to superior units and related government departments according to regulations, protect the accident scene and related evidences.

5.10.3 Work out correction and prevention measures based on accident cause, and keep track of how they are implemented.

5.10.4 Declare occupational injuries according to the processes and provide protection for the injured in the event of occupational health accidents.

Occupational Health Monitoring

5.11.1 Establish the Occupational Monitoring File and List of Employees at Occupational Risk Posts. **(E)**

5.11.2 Have employees at occupational risk posts take pre-job, on-the-job and pre-leaving physical examinations. **(E)**

5.11.3 Notify the employees at occupational risk posts of their physical examination results and provide them with a (sealed) copy.

5.11.4 No assigning employees susceptible to occupational contraindications to occupational risk posts.

5.11.5 Arrange a re-examination for employees with abnormal results of an occupational health physical examination, and consider a transfer from the original post if necessary.

5.11.6 No severance of labor relations before employees at occupational risk posts taking the pre-leaving physical examination.

Special Protection

5.12.1 No assigning female employees during pregnancy and breastfeeding to posts



harmful to health and the fetus.

5.12.2 No assigning minor workers to occupational risk posts.

Diagnosis of occupational disease

5.13.1 The Factory shall entrust a qualified medical agency to conduct occupational disease appraisal and bear the related costs.

5.13.2 The Factory shall provide the occupational health monitoring file, work site monitoring data and other materials of the employees.

5.13.3 Timely report occupational diseases or suspected cases to the safety supervision, health and labor departments

5.13.4 The Factory shall provide protection for employees with occupational diseases as required.

6. Production Safety

Safety Pre-Evaluation & Facilities

6.1.1 Conduct Safety Pre-evaluation on new, reconstruction and expansion projects like mining, chemical engineering and metallurgy. **(E)**

6.1.2 Acquire approval on Safety Pre-evaluation on new, reconstruction and expansion projects. **(E)**

Three Simultaneous Policy of Safety Protection Facilities

6.2.1 Establish and implement “Three Simultaneous” management policy for safety protection facilities of new, reconstruction and expansion projects.

6.2.2 Design safety protection facilities of new, reconstruction and expansion projects as required.

6.2.3 Conduct completion acceptance inspection on safety protection facilities of new, reconstruction and expansion projects.

6.2.4 Acquire approval on trial production of new, reconstruction and expansion projects.

6.2.5 Conduct and file Safety Acceptance Inspection Evaluation on new, reconstruction and expansion projects. **(E)**

Production Safety Conditions

6.3.1 Select the factory site according to related standards and keep a safe distance from the surroundings.



6.3.2 The Factory shall make a rational arrangement of vehicle flow, people flow and material flow to ensure safety.

6.3.3 The lighting of the factory buildings shall comply with the job requirements.

6.3.4 The classification of fire hazards and the minimum fire safety distance between buildings and structures in the production sites shall meet the requirements of Code for Fire Protection Design of Buildings (GB 50016).

6.3.5 The buildings and structures in the Factory shall be equipped with lightning protection facilities in accordance with Code for Lightning Protection Design of Buildings (GB50057) to be inspected on a regular basis to ensure that they are in good condition.

6.3.6 The rest rooms, bathrooms and dressing rooms of the Factory shall be established in safe areas, operating rooms and duty rooms shall not be established in hazardous areas with possible leakage of hazardous gases.

Hazard Source Identification

6.4.1 Establish and implement Hazard Source Management System, identify and evaluate the duties, methods, scope, processes, control principles, evaluation, and continuous improvement.

6.4.2 Identify, classify and conduct risk evaluation on the hazard sources of the production facilities or venues, grade hazard sources and key hazard sources (including key hazard sources identified by the Company) and formulate control measures.

6.4.3 Identify unsafe behaviors of operators during production operations and formulate corresponding control measures.

6.4.4 Timely register and file hazard sources confirmed, and report key hazard sources to safety supervision authority and related departments for filing.

6.4.5 Take measures to monitor hazard sources (including key hazard sources identified by the Company), including technical measures (design, construction, operation, maintenance, examination, inspection, etc.) and organizational measures (responsibility defining, personnel training, protection equipment, operating requirements, etc.)

6.4.6 Related personnel shall inspect the hazard sources as required and sign on the inspection records.

Hazard Notification

6.5.1 Occupational risk posts shall be notified in the labor contract. **(E)**

6.5.2 Establish and implement Warning Mark and Safety Protection Management System.

6.5.3 The name and flow direction of medium shall be marked on the pipelines of different media as provided in Basic Identification Colors, Identification Symbols



and Safety Labels of Industrial Pipelines (GB7231).

6.5.4 Labels and warning marks shall be posted on hazardous chemical warehouses, special equipment and high occupational risk posts as required.

6.5.5 Hazard notification information shall be posted in the work sites of occupational risk posts, safety warning marks and safety colors posted in the high occupational risk work sites or related equipment.

6.5.6 Provide Chemical MSDS in Chinese for employees at chemical related occupational risk posts.

6.5.7 Set up warning areas and post warning marks in equipment inspection and maintenance sites, construction sites, hoisting sites and other operating sites, set up enclosures and post warning marks in the pits, wells, low-lying areas, ditches, steep slopes and other areas of inspection and maintenance sites.

6.5.8 Post prominent warning marks on production equipment and facilities with safety hazards.

6.5.9 Post prominent warning marks on production equipment and facilities with safety hazards.

6.5.10 Strengthen trainings on and communications with employees at risk posts to allow them understand the safety risks of the posts and prevention measures.

PPE

6.6.1 Establish regulations in regard to the procurement, issuance and use of personal protection equipment.

6.6.2 Equip proper personal protection equipment in accordance with the occupational risk factors of the posts and working environment.

6.6.3 The Factory shall conduct trainings in respect of wearing personal protection equipment on related employees.

6.6.4 The Factory shall urge and standardize the correct wearing of personal protection equipment of employees.

Machine Safety

6.7.1 Industrial fixed and movable landing platforms shall comply with standards, and materials and railings shall be safe, intact and comply with standards.

6.7.2 Protective covers, railings or fenders shall be equipped on the exposed machinery of the equipment.

6.7.3 Protective covers, hoods or railings shall be equipped on the transmission as follows:

6.7.4 Forging Machinery: Equip safety devices, sound and effective protection equipment and facilities to ensure that the production parts are securely mounted and crack free.

6.7.5 Casting Machinery: Equip safety devices, sound and effective protection equipment and facilities to ensure that the equipment parts are strong enough and pipes adequately sealed.



6.7.7 Conveying Machinery: Equip complete and reliable protection equipment on the transmission and an emergency stop button every 20 meters.

6.7.8 Flaw Detection Equipment: Ensure good sealing, responsive and normal operation of alarm facilities, and effective protection.

6.7.9 Metal-cutting machine tools: Complete and reliable protective covers, hoods and railings; devices preventing jigs and fixtures from loosening or falling off in good condition; various limiting, interlocking and operating handles responsive and reliable; machine tool PE normatively and reliably connected; machine tool lighting up to standards; electrical boxes, cabinets and wirings of machine tools up to standards; uncovered pegs, pins and bolts of rotating parts not protruding; special chip removal tools equipped.

Grinding machines: qualified grinding wheels, no obvious throbbing lathes in rotation; back-up devices equipped for the machining of ultra-long materials;

Electrosparking machine tools: Flammable operating fluids shall have a flash point over 70°C and adopt immersion machining.

Sawing machines: The exposed saw blade shall have protective covers or keep in a safe distance.

Machining Center: Fixed and adjustable protection equipment equipped around the machining areas.

6.7.10 Grinders: Grinders shall be set in locations as required with effective safety protection equipment like protective covers, checked on a regular basis to prevent excessive wear or use beyond service life.

6.7.11 Industrial robots shall be equipped with limiting devices that can stop the robots in rated load, maximum speed and maximum elongation, and shall immediately stop when the emergency switch is activated during transportation; isolated safety covers shall be equipped in operating areas to cover all dangerous areas; the covers shall be strong enough to resist the maximum attack energy of the robots; the cabin doors of the protective covers shall be equipped with mechanical safety locks or access devices; dangerous areas shall be installed with emergency stop buttons in compliance with related standards.

6.7.12 Special equipment shall comply with the requirements of laws, regulations, standards and specifications concerned; protective covers, hoods and railings shall be intact and reliable; interlocking, emergency stop and control devices shall be responsive and reliable; local lighting shall be operated at safe voltage; PE and other electrical appliances shall be intact and reliable; landing platforms shall comply with requirements.

Electrical Safety

6.8.1 The models of lighting and electrical devices shall match the operating areas. Safe voltage, fireproof, explosionproof and corrosion proof requirements of different grades shall be adopted.

6.8.2 Electrical rooms (including computer rooms) and cable interlayers shall be equipped with automatic fire alarms, smoke and fire signal devices, monitoring



devices and fire extinguishing devices and little animal access prevention measures shall be taken; cable outlets shall be blocked with fireproof materials.

6.8.3 House generators shall not be connected with power supply network, and shall be reliably grounded. The ambient temperature of diesel generators and operating temperature of diesel engines shall not exceed 75 oC (E Grade) and that of rotors shall not exceed 80 oC (B Grade).

6.8.4 Enclosed electrical equipment shall be adopted for sites generating a lot of steam, corrosive gases and dust; explosionproof electrical equipment shall be adopted for work sites with explosive gases or dust.

6.8.5 Low-voltage temporary lines shall have complete temporary line installation approval procedure and shall not be used beyond the validity period. They shall also have good insulation and load-matching sheathed hoses, and comply with safety laying requirements. Master switch control and earth leakage protection devices shall be equipped, and each branch equipped with load-matching fuse protectors. The PE shall be reliably connected. No temporary lines in explosive and flammable sites.

6.8.6 Low-voltage (fixed) electrical lines shall have preventive test records on the cable lines on a regular basis. The safe distance, conductivity and mechanical strength of lines shall comply with requirements; the protection equipment of lines shall be complete and reliable; the lines shall have good insulation and protection without heating or oil leakage; the upright, strain and crossarm ceramic insulators of the electric poles shall comply with safety requirements; the phase sequence and color code of the lines are correct, completely and distinctively labeled; the lines are neatly arranged, without obstacles affecting line safety.

6.8.7 Power grid earthing system shall meet structural integrity and independent safety requirements; the resistance of earthing devices shall be tested qualified; multiple earthing of TN system shall be rationally laid; the earthing devices must be reliably connected, mechanically strong, corrosion-proof and damage-proof or complete with supplementary protection measures; the earthing devices shall also have distinctively-marked serial numbers and labels, effective and regular test reports and complete information.

6.8.8 Mobile electrical equipment shall have insulation resistance tests on a regular basis with the insulation resistance less than 1 megohm. The power lines shall be three-cord or four-cord multi-strand rubber cables without connectors or crossing passageways. With intact insulation layer and PE wires reliably connected, the power lines shall be less than 5 meters. Furthermore, the electrical equipment shall have intact, sturdy protective covers, reliable and responsive switches, and shall be



load matching.

6.8.9 Metal cases of electrical equipment (handheld electric tools in particular) and metal protective tubes of wires shall have good PE (or earthing) devices.

Special Equipment

6.9.1 Equipment and pipeline system of oil, water, coal gas, steam, air and other gases with a gage pressure over 0.1MPa shall be equipped with pressure gauge, safety valve and other safety devices with regular calibrations.

6.9.2 Hoisters shall be marked with hoisting tonnage and equipped with the following safety devices: (1) limiting stopper; (2) buffer; (3) anti-collision device; (4) overload limiter; (5) interlocking protection device; (6) rail end stopper; (7) positioning device; (8) Others: zero protection, safety hook, rail sweeper and electrical safety device; (9) platform handrail, protective cover, slide wire protective plate, rain cover (in the open) and other protection devices; (10) large hoisting machinery safety monitoring and management system, safety information reminder and alarm device; (11) slide wire indicator, power indicator, underbridge and driver's cab lamp.

6.9.3 The slide wires of the hoisters shall be laid out on the other side of the driver's cab; if the slide wires are laid out on the same side of the driver's cab, safety protection measures shall be adopted.

6.9.4 The hoisting slings shall be managed by designated personnel and used within the scope of allowed safety factors. The safety factors of steel wire ropes and chains and the scrapping standards of steel wire ropes shall comply with related requirements..

6.9.5 The safety routes of hoisted objects shall not span over fixed manned posts or sites where personnel frequently stay, or go over main equipment arbitrarily.

6.9.6 Pressure containers and safety accessories shall be used within the inspection validity period, and intact; connectors shall have no abnormal vibration, abrasion and loosening; safety accessories, display devices, alarm devices and interlocking devices shall be intact with complete commissioning and replacement records; operation and use shall comply with related requirements without overpressure or overheat.

6.9.7 Boilers and boiler auxiliaries shall have "three certificates", intact safety accessories, complete, responsive and reliable safety valves, water gauges and pressure gauges, and non-leaking pollution discharge devices; alarm and interlocking protection devices shall be rationally equipped as required; water supply facilities shall be intact and rationally equipped; no serious air leakage or smoke leakage, good explosionproof devices for oil, gas and coal boilers; water treatment shall be up to standards and water scale in the boilers shall be less than 1.5mm thick; pipelines shall have no leakage, intact insulation layer and reliable pipeline frameworks; other auxiliary machinery shall comply with mechanical safety requirements.



6.9.8 Motor vehicles in the Factory shall be used within the inspection validity period and have steadily operating power system, no electric, water or oil leakage. Lighting and electrical systems are intact, instruments, lighting, signal and other auxiliary safety devices function properly. The tires have no damage and braking distance complies with requirements.

6.9.9 Industrial gas cylinders are stored in warehouses in good condition and completely labeled with safety marks. Storage location, spacing, marks and quantity comply with requirements. Protection equipment and fire equipment are reliable. Gas cylinders are used within the inspection validity period, with no apparent defect or corrosion, correct and distinctive paint colors and marks, complete and intact safety accessories. Reliable anti-toppling measures are adopted in the use of gas cylinders. Storage quantity in work sites and distance from fire comply with requirements.

Chemical Management

6.10.1 Establish and implement regulations in respect of procurement, transportation, storage and scrapping of chemicals, and Chemical Leakage Emergency Plan.

6.10.2 Hazardous chemicals warehouses shall comply with safety standards and have Emergency Plan. Hazardous chemicals shall be classified and stored in separate zones or warehouses based on hazard level. Heat insulation, cooling and ventilation measures shall be taken, fire control facilities well-equipped and fire fighting access unblocked in the warehouses. Explosion-proof electrical equipment of corresponding levels shall be adopted. Waste materials or their packaging containers shall be effectively disposed.

6.10.3 Oil depots and oil tanks: Tank trucks equipped with special exhaust flame arresters are allowed to enter the depot area with special permit; oil tanks have no corrosion or leakage; the liquidometers and breather valves on the oil tanks are complete, reliable and responsive; tanks and rubber oil pipes have lightning protection and static electricity protection earthing; tanks shall be adequately spaced from other tanks or buildings, pipelines and mainlines; electrical facilities in the depot are explosionproof; fire equipment and fire extinguishing facilities shall be adequately equipped based on the type and quantity of the storage goods in the depot, and corresponding alarm devices equipped; spark-free explosionproof tools shall be used in the depot; safety warning marks, names, features and quantity of oil products, fire extinguishing methods shall be prominently posted inside and outside the depot.

Fire Safety

6.11.1 No sliding doors at safety entrances/exits (evacuation exits), warehouses not included. Strictly prohibit the use of revolving doors. The entrances/exits of factory



buildings and staircases and footwalks are not advised to face places with a heavy vehicle flow or frequent equipment operations, otherwise, protection equipment or prominent warning marks shall be provided.

6.11.2 Such key departments as workshop electrical room, underground oil depot, underground hydraulic station, underground lubrication station and underground pressure station shall have no less than two entrances/exits (one entrance and exit in case of an unattended room with an area less than 6m².) with outward-opening doors.

6.11.3 Establish fire alarm signals with centralized monitoring and display.

6.11.4 All equipment and facilities constructions shall comply with the requirements of laws, regulations, standards and specifications concerned.

6.11.5 Strictly prohibit overhead cables across explosive and fire hazard areas.

6.11.6 Equip emergency lighting that can be automatically initiated after interruption of normal lighting.

High-Risk Operations

6.12.1 Establish and implement Safety Management System including at least the following hazardous operations, define responsible departments, personnel, permitted scope, approval procedure and permit issuers: (1) Hot work in hazardous areas; (2) operations in limited space; (3) energy media operations; (4) High-place operations; (5) Large hoisting operations; (6) Cross operations; (7) Other hazardous operations. **(E)**

6.12.2 Use work permits that include analysis of hazard factors and safety measures for the safety management of hazardous operations.

6.12.3 Comply with related lockout-tagout requirements when operating on electrical equipment with a full or partial power outage.

6.12.4 Implement permit and work ticket system for highly hazardous operations.

6.12.5 No hot work in flammable and explosive areas. Move hot work maintenance and servicing work of the equipment to hot work areas as practicable as possible.

6.12.6 The following provisions shall be complied with during maintenance and servicing work in equipment, pipelines and containers with flammable, explosive or easily poisoning substances and toxic substances: (1) The material inlet and outlet shall be reliably cut off; the concentration of toxic substances shall be less than the allowed value and the oxygen content 18% to 22% (volume percentage concentration); reanalyze the concentration every two hours during the operation or after an interruption over half an hour; (2) There shall be no less than 2 guardians; anti-gas masks and protection equipment shall be equipped; the maintenance and servicing personnel shall know how the anti-gas masks work and how to use them; (3) The lighting voltage within the equipment shall be less than or equal to 36V, that within humid and narrow containers less than or equal to 12V.



Change Management

6.13.1 Establish and implement Production Equipment and Facilities Change Management System, implement change procedures and control the hidden dangers during the changes.

6.13.2 Establish the management system for changes in related personnel, institutions, processes, technologies, facilities and operating processes and environment, formulate and implement plans.

6.13.3 Approve and inspect the changes, identify, evaluate and control the risks and hidden dangers during and after the changes.

Safety Equipment and Facilities Operation and Management

6.14.1 Establish and implement Safety Equipment and Facilities Inspection, Repair and Maintenance Management System.

6.14.2 Establish the operation ledger and work out inspection (maintenance) plan of safety equipment and facilities

6.14.3 Plans shall be worked out before maintenance and repair of equipment and facilities. Maintenance and repair plans shall include operational behavior analysis and control measures.

6.14.4 Conduct inspections on related safety equipment, facilities, instruments and tools, file and keep related documents.

6.14.5 Do not dismantle, remove or disuse safety equipment and facilities; take temporary safety measures if dismantling safety equipment and facilities for maintenance and repair, and immediately restore them after maintenance and repair.

6.14.6 The full life cycle of the equipment shall comply with the requirements of laws, regulations, standards and specifications concerned to ensure safety.

6.14.7 Establish and implement Equipment and Facilities Inspection Acceptance, Dismantling and Scrapping Management System.

Contractor Management

6.15.1 Establish and implement the management system of related contractors, suppliers and other related parties.

6.15.2 Manage the pre-qualification, selection, pre-service preparation, operating process supervision, products, technical service, performance evaluation and



renewal of contractors, suppliers and other related parties, and establish the List and File of Related Parties.

6.15.3 Identify the service behavior risks based on the nature and behaviors of service operations provided by related parties, adopt effective risk control measures, and monitor safety performance.

6.15.4 Engineering projects shall not be awarded to unqualified units. The Engineering Project Agreement shall define the production safety responsibilities and obligations of both parties.

Hidden Danger Troubleshooting

6.16.1 Establish and implement Hidden Danger Troubleshooting and Handling Management System, and define troubleshooting scope, responsible departments, personnel and methods.

6.16.2 Analyze and evaluate the hidden dangers, identify the level of hidden dangers, register and file hidden dangers.

6.16.3 Work out plans to handle hidden dangers based on the troubleshooting results and disclose relevant information to employees.

6.16.4 Verify and evaluate the results after handling the hidden dangers of key accidents.

6.16.5 Conduct statistical analysis on hidden danger troubleshooting and handling as required, and submit the written statistical analysis form to safety supervision authority and other related departments.

Emergency Preparations and Response

6.17.1 Establish an accident emergency preparedness and response system and an emergency rescue plan that is scientific and operable.

6.17.2 Report the Emergency Plan to local competent department for filing and keep related emergency cooperation units informed of the Emergency Plan.

6.17.3 Establish the Emergency Preparation And Response Organization and Team, report to relevant departments and announce to the public in accordance with the law, conduct trainings on full-time and part-time emergency rescue team and members on a regular basis.

6.17.4 Equip emergency facilities and devices and store emergency supplies as required by the Emergency Plan, strengthen daily maintenance to ensure that they are sound and reliable.

6.17.5 Organize at least one emergency plan drill a year, and evaluate the results of



the drills.

6.17.6 Immediately initiate the related Emergency Plan after an accident and handle it proactively.

6.17.7 Review and revise the Emergency Plan on a regular basis with a focus on problems after drills and emergency responses.

Accident Management

6.18.1 Establish and implement accident management system and define the formats and forms of reports, investigations, statistics and analysis, reviews and written reports.

6.18.2 Persons in charge shall immediately arrive at the scene after the accident, organize rescue activities and adopt effective measures to keep the accident under control.

6.18.3 Arrange an accident investigation team or work with government administrative departments to investigate and handle the accident as provided by laws, regulations and rules, and keep related records.

6.18.4 Equip emergency facilities and devices and store emergency supplies as required by the Emergency Plan, strengthen daily maintenance to ensure that they are sound and reliable.

6.18.5 Establish correction and prevention measures for environmental accidents and keep track of how they are implemented.

6.18.6 Declare industrial injuries according to the processes if any and make appropriate arrangements for the injured employees.



FULL LIST OF ESSENTIALS; Fundamental requirements, absence leads to failure

1. Management System

1.5.3 Review the compliance of CSR (EHS) laws and regulations on a regular basis, and prepare reports. (E)

2. Business Ethics

2.1.1 Establish and announce anti-unfair competition regulations. (E)

2.2.1 Establish whistleblowing and reporting channels. (E)

2.3.1 Conduct compliance investigation according to the requirement of OECD, EICC and other standard to make sure all mine material including gold, tin, tantalum and tungsten must NOT come from conflict area and countries which defined by related standard such as Democratic Republic of Congo, Uganda, etc. (E)

2.4.1 Establish regulations to protect factory clients and supplier trade secrets. (E)

2.5.1 Comply with data privacy and information security laws. (E)

3. Labour Rights

Child Labour

3.1.1 Prohibit employment of child workers. (E)

3.1.6 The Company shall never put children or minor workers in unsafe or dangerous environment bad for their physical and mental health and development in or outside of the workplace. (E)

Forced Labour

3.2.1 Prohibit forced and bonded labour. (E)

3.2.2 Forbid deposit payments or ID retention. (E)

3.2.3 Prohibit withholding of pay to enforce work. The Company shall not withhold partial pay, welfare, property or certificates of workers so as to force continuous working. (E)

3.2.4 Ensure employees can leave after regular hours. (E)

3.2.5 Allow contract termination with reasonable notice. (E)



Anti-Discrimination

3.4.1 Prohibit discrimination. The Factory shall hold no discrimination against employees because of race, nationality or social status, social class, descent, religion, disability, gender, sexual orientation, family responsibility, marital status, member of Trade Union, political view, age or other reasons. (E)

3.4.3 No threatening, maltreating and exploiting behaviors and forced sexual harassment behaviors on employees, posturally, verbally or physically, are allowed in any place. (E)

3.4.4 Ban pregnancy or virginity testing. (E)

Punitive Measures

3.5.1 Forbid corporal punishment or mental/physical coercion. The Factory shall treat all employees with dignity and respect, and shall not engage in or support the use of corporal punishment, mental or physical coercion, and verbal abuse, or treat the workers brutally and inhumanely. (E)

Working Hours

3.6.1 Comply with legal limits (max 48h regular + 12h overtime). The Factory shall abide by the regulations in relation to working hours and public holidays of applicable laws and industrial standards. A standard work week (excluding overtime hours) shall not exceed forty eight hours according to law. (E)

Remuneration

3.7.1 Meet or exceed minimum wage requirements. (E)

3.7.2 Forbid punitive deductions. (E)

4. Environmental Protection

Environmental Impact Assessment

4.1.1 Establish environmental impact assessment management system for new, reconstruction and expansion projects. (E)

4.1.2 Acquire approval on environmental impact assessment of new, reconstruction and expansion projects. (E)

Construction & Project Controls

4.2.3 Pass completion acceptance inspection of new, reconstruction and expansion projects. (E)

4.2.4 Obtain Pollutant Discharge Permit as required, declare pollutant discharge as required and pay pollutant discharge fee. (E)



Water & Wastewater

4.4.5 Monitor waste water discharge at least once a year, conduct compliance evaluation against national standards and keep documents. (E)

Waste Gas

4.6.4 Monitor waste gas discharge at least once a year, conduct compliance evaluation against national standards and keep documents. (E)

Noise

4.7.4 Monitor noise emissions at least once a year, conduct compliance evaluation against national standards and keep documents. (E)

Solid & Hazardous Waste

4.8.5 Transfer and dispose hazardous wastes as required by law and keep records. (E)

5. Occupational Health

Pre-Evaluation & Facilities

5.1.1 Conduct Occupational Health Pre-evaluation on new, reconstruction and expansion projects with occupational risks. (E)

5.1.2 Acquire approval on Occupational Hazard Pre-evaluation on new, reconstruction and expansion projects. (E)

Three Simultaneous Policy of Occupational Health Facilities

5.2.6 Conduct and acquire approval on or file Occupational Hazard Control Evaluation on new, reconstruction and expansion projects. (E)

5.2.7 Declare occupational hazard projects as required. (E)

Occupational Risk Notification & Signage

5.4.1 Occupational risk posts shall be notified in the labor contract. (E)

Monitoring & Evaluation

5.8.4 The test results of occupational risk factors in the Factory's operating environment shall comply with the national requirements on exposure standards. (E)

Occupational Health Monitoring

5.11.1 Establish the Occupational Monitoring File and List of Employees at Occupational Risk Posts. (E)



5.11.2 Have employees at occupational risk posts take pre-job, on-the-job and pre-leaving physical examinations. (E)

6. Production Safety

Safety Pre-Evaluation & Facilities

6.1.1 Conduct Safety Pre-evaluation on new, reconstruction and expansion projects like mining, chemical engineering and metallurgy. (E)

6.1.2 Acquire approval on Safety Pre-evaluation on new, reconstruction and expansion projects. (E)

Three Simultaneous Policy of Safety Protection Facilities

6.2.5 Conduct and file Safety Acceptance Inspection Evaluation on new, reconstruction and expansion projects. (E)

Hazard Notification

6.5.1 Occupational risk posts shall be notified in the labor contract. (E)

High-Risk Operations

6.12.1 Establish and implement Safety Management System including at least the following hazardous operations, define responsible departments, personnel, permitted scope, approval procedure and permit issuers: (1) Hot work in hazardous areas; (2) operations in limited space; (3) energy media operations; (4) High-place operations; (5) Large hoisting operations; (6) Cross operations; (7) Other hazardous operations. (E)

Short summary for end-consumers & industry clients (5–8 sentences)

In simple terms, the Essential (“E”) criteria guarantee that no child labour or forced labour is used, that workers are never coerced through withheld wages, deposits, or confiscated IDs, and that they can leave and terminate employment under fair conditions. The standard requires non-discriminatory treatment, a workplace free of harassment and corporal punishment, and respect for workers’ freedom. It also ensures fair working hours within legal limits, payment of at least minimum wages without punitive deductions, and special health monitoring and protection for employees in high-risk jobs. For buyers, another key point is strict conflict-minerals control (e.g. 3TG metals not from conflict areas), strong protection of trade secrets and data privacy, and secure whistleblowing channels so violations can be reported without fear. Environmentally, factories must carry out and obtain approval for



environmental impact assessments, hold valid pollution discharge permits, and regularly monitor wastewater, air emissions, noise and hazardous waste handling against national standards. On occupational health and safety, the criteria demand pre-evaluations and approvals for risky projects, proper evaluation of occupational hazards, contract-level notification of risk posts, and mandatory medical checks for exposed workers. Overall, these Essentials form the “non-negotiable” baseline that assures both consumers and industry clients that products are made under humane, legally compliant, and environmentally responsible conditions.

End of Annex A1 — Fair Magnet Audit Criteria



Annex A2 – Non-Conformity Grading Matrix

1. Purpose

Defines the classification, evaluation, and follow-up rules for audit findings within the Fair Magnet Standard. The matrix is used by auditors and factories to ensure consistent scoring and corrective action planning.

2. Audit Scoring Structure

Attribute	Full Scale
Management System	200
Business Ethics	50
Labour Rights	150
Environmental Protection	250
Occupational Health	300
Occupational Safety	550
TOTAL ITEMS	1500
Full Score	5.00

Note: The total applicable score adapts to the audited company depending on non-applicable items.

3. Finding Categories

Category	Definition	Action Requirement	Impact on Certification
Essential (E)	Critical finding, violation of law or standard principle.	Immediate corrective action or re-audit required.	Failure leads to denial or suspension.
Major Non-Conformity	Serious deviation from requirements; system not	Root cause analysis and CAP submission required.	Impacts Total Score and reachable Certification level



Category	Definition	Action Requirement	Impact on Certification
	effectively implemented.		
Minor Non-Conformity	Isolated issue or partial implementation gap.	Improvement plan required.	Impacts Total Score and reachable Certification level
Observation	Potential risk or good-practice recommendation.	Optional improvement.	Impacts Total Score and reachable Certification level
Suggestion	Advisory note to improve efficiency or documentation.	Optional.	Impacts Total Score and reachable Certification level

4. Scoring and Evaluation

- Each audit criterion carries a weight according to category (total 1500 points = 5.00 score).
- Score per category = (Actual / Full Scale) × Weight.
- Audit reports show both numeric score and qualitative summary.
- Passing threshold for SILVER Status: **≥3.0** overall, with **no Essential non-conformities** outstanding.
- Non-applicable criteria are subtracted from total before calculating percentage.

5. Follow-Up and Verification

1. **Feedback:** Supplier receives the audit report with listed non-conformities and observations.



2. **Corrective Action:** Supplier prepares a CAP aligned with auditor recommendations.
 3. **Review:** Auditor reviews evidence or revisits site before certification decision.
 4. **Project Counseling (optional):** Supplier may request auditor support on critical improvements.
-

End of Annex A2



Annex A3 – Corrective Action Plan (CAP) Template

1. Purpose

Outlines the corrective action process to address non-conformities found during baseline or certification audits.

2. CAP Process Flow

Step 1 – Reporting: Auditors identify findings and classify them (Essential, Major, Minor, Observation).

Step 2 – Planning: The enterprise drafts an improvement plan with corrective and preventive actions.

Step 3 – Submission: The CAP is submitted to the auditing body within 14 days of report receipt.

Step 4 – Review: The auditing team reviews and approves or requests revisions.

Step 5 – Verification: Evidence review or follow-up audit confirms closure.

Step 6 – Certification: Certification audit granted after successful closure of Essential findings.

3. Corrective Action Plan Table (Template)

No.	Description of Finding	Category	Root Cause Analysis	Corrective Action	Preventive Action	Responsible Department	Responsible Person	Planned Completion Date	Verification Method	Status / Remarks
1	Example: Incomplete PPE records for polishing section	Minor	Lack of central documentation	Consolidate PPE issuance forms	Implement monthly review	HSE Department	Zhang Wei	2025-03-01	Upload evidence photos	In progress

4. Closure and Follow-Up Rules

- **Essential (E):** Must be closed and verified before certification.
- **Major:** Must be verified within 90 days by auditor.
- **Minor:** May be verified remotely at next surveillance audit.



- **Observations/Suggestions:** Monitored for progress and discussed in next audit.
 - Corrective actions are marked as *Closed* only after documentation and evidence are reviewed by the auditor
-

5. Responsibilities

- **Auditor:** Classify findings, verify CAP implementation, update final audit report.
 - **Enterprise:** Develop, execute, and document corrective measures.
 - **Fair Magnet e.V.:** Final review, approval, and certification decision.
-

End of Annex A3 – Grading Matrix & Corrective Action Plan Template



ANNEX A4 – Pre-Qualification Training (CN)

Summary Table of Contents (Day 1 & Day 2)**

DAY 1 – EHS MANAGEMENT CAPABILITY

(Based on “第1 天下午 – EHS 管理能力 – 2025”)*

1. Course Introduction

- Purpose & context of EHS in industrial supply chains
- Roles of trained personnel prior to Fair Magnet audits

2. Necessity of EHS Management

- Definition & scope of EHS
- Legal, social and customer expectations
- National situation: safety production, occupational disease, environmental challenges
- Business value of strong EHS performance

3. EHS Role Positioning & Competency Requirements

- Expected functions of EHS personnel (leader, coordinator, trainer, supervisor, designer)
- Regulatory duties of management vs. EHS staff
- Required knowledge: laws, standards, professional skills, management skills

4. How to Conduct Daily EHS Work

- Typical barriers in enterprises (lack of responsibility, resources, training)
- Employee behaviour challenges and risk perception gaps
- Legal requirements: responsibilities, SOPs, training, inspections, hazard elimination
- Organisational structures: EHS committees, roles of plant leadership, EHS culture building
- Performance evaluation and communication mechanisms

5. EHS Leadership – Self-Assessment & Improvement



- Leadership behaviour indicators and scoring
- How managers influence EHS culture and employee compliance

6. Core EHS Knowledge Modules

6.1 Safety Production Overview

- High-risk work types: hot work, work at height, forklifts, lifting, machinery safety

6.2 Hot Work Safety Management

- Definition, risk cases
- Approval procedures,现场 requirements, gas monitoring
- Roles: hot-work operator, permit issuer, supervisor, responsible person

6.3 Work at Height Safety Management

- Definition & levels (2-30m+)
- Safety measures: scaffolding, ladders, PPE, lifelines, fall prevention
- Permit flow, supervision responsibilities

6.4 Forklift Safety

- Structure, load centres, common accident types
- Operator qualification requirements
- Pre-use checks, driving rules, loading/unloading, charging, storage

6.5 Lifting Operations Safety

- Common failures, equipment types, unsafe practices
- Personnel qualification, equipment inspection, “Ten no-lift” rules

6.6 Hazardous Chemicals Management

- GHS classification
- Storage, transport, handling, dispensing, ventilation, emergency measures
- Procurement flow & documentation (MSDS, licensing, registration)



6.7 Machinery Safety

- Hazard identification (mechanical, electrical, thermal, ergonomic)
- Engineering controls, guards, interlocks, emergency stops
- Administrative and PPE measures

6.8 Occupational Health Overview

- Definition, classification of occupational diseases
- Hazard factor monitoring, exposure limits
- Health surveillance (pre-job, on-job, post-job)

6.9 Environmental Protection Basics

- Definitions: environmental factor, impact, pollution
- Emissions to air/water/soil, solid waste & hazardous waste
- Environmental impact pathways

DAY 2 – EHS RISK IDENTIFICATION & CONTROL

*(Based on “第2天 – EHS 风险识别2025”)**

1. Introduction to EHS Risk Management

- Definitions: hazard, risk, exposure
- Categories of hazardous factors (people, equipment, environment, management)
- Sources of risk information (EIA, occupational health assessments, audits, change management, incident reports)

2. Risk Identification & Evaluation

- LEC method (Likelihood–Exposure–Consequence)
- Risk classification & thresholds
- Risk hierarchy: eliminate → substitute → engineering → admin → PPE
- Structure of risk control plans



- Relationship between risk grading & hidden-hazard management

3. Hidden Hazard Identification & Control System

- PDCA cycle, link to risk matrix
- Risk-point, hazard-source identification
- Plant / workshop / team / position-level responsibilities
- Example: furnace risk sheet, inspection table

4. Fire Safety Management

4.1 Legal Framework

- Fire Protection Law
- Key responsibilities of enterprises and “fire safety responsible persons”
- Special obligations for key fire-risk units

4.2 Technical & Organisational Requirements

- No fire/ignition sources, smoking rules
- Facility maintenance (hydrants, sprinklers, alarms, emergency lighting)
- Evacuation, exits, barriers, emergency routes
- Inspection frequencies: daily, monthly, internal audit, external audit

4.3 Fire Science & Prevention

- Combustion basics, classifications (A-F)
- Fire development stages
- Hazardous characteristics (toxicity, smoke, structural collapse)

4.4 Fire Protection Systems

- Fire alarm system (detectors, control panels, signals)
- Fire hydrant system (structure, equipment, inspection)
- Extinguishers: types, placement, maintenance cycles
- Passive fire protection (fire resistance ratings, compartments, distances)



4.5 Common Non-Conformities & Case Examples

- Blocked exits, expired extinguishers, missing detectors, unsafe storage
- Undocumented maintenance or untrained staff

5. High-Risk Work Management (Permit-to-Work System)

- Categories: hot work, confined space, work at height, lifting, excavation, electrical isolation, blind-plate removal
- Typical PTW failures
- Required risk assessments, controls & monitoring
- Case study: Suzhou Beirui Mei fire accident

6. Electrical Safety Management

- Causes of electrical fires, insulation, grounding
- Residual current devices, proper enclosure, moisture protection
- PPE for electrical tasks
- Operator qualifications

7. Mechanical Safety – Lockout/Tagout (LOTO)

- Hazardous energy types (electrical, pneumatic, hydraulic, mechanical, thermal)
- 6-step LOTO procedure: shut down → identify → isolate → lock & tag → release stored energy → verify zero-energy
- Multi-worker lockbox method
- Restart procedures

8. Emergency Preparedness & Response

8.1 Basics

- Purpose of emergency management
- Pre-incident prevention vs. response capability

8.2 Emergency Drill System



- Types: comprehensive, special-topic, on-site response
- Organisational structure: planning, operations, logistics, technical, evaluation
- Scenario creation, real-scene simulation, role responsibilities

8.3 Drill Execution & Evaluation

- Documentation, photos, videos, checklists
- Lessons learned, corrective actions, updating emergency plans

8.4 Shared Practical Examples

- Electric shock rescue, elevator rescue, typhoon/flood defence
- Identified gaps and corrective action plans

9. Accident Management

- Accident classification (general, major, severe, catastrophic)
- Legal reporting timeframes
- “Four-Not-Release” principle
- Root-cause analysis (Swiss cheese, 5-Why, fishbone)
- Costs: direct vs. indirect (“iceberg model”)
- Post-incident handling: investigation report, CAPA, medical follow-up, site restoration

End of Annex A4 – Pre-Qualification Training Contents