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1 Introduction

The Micro Crystal (MC) **Management, Environmental & Social responsibility principles of Conduct (MES)** outline standards to ensure that working conditions in MC facilities, and our Supply Chain partners activities supporting MC's requirements, are safe, that workers are treated with respect and dignity, and that manufacturing processes utilized by MC and it's partners are environmentally responsible.

For the purposes of the Principles, the following are considered as part of the MC Supply Chain, namely, Electronic Manufacturing Services (EMS) firms and Original Design Manufacturers (ODMs) including contracted Labour that may design, market, manufacture and/or provide goods and services that are used to produce MC electronic goods. The Principles will be actively promoted to critical suppliers in the MC Supply Chain and subsequently applied by that supplier to its supply chain and subcontractors.

To adopt the Principles and become a participant (Participant), a business shall declare its support for the Principles and shall conform to the Principles and its standards in accordance with a management system as set forth in the Principles. Further, a Participant shall hold its practices open to scrutiny to an initial MC MES audit and subsequent MES surveillance audits. For the Principles to be successful, it is acknowledged that Participants should regard them as a total supply chain initiative. At a minimum, participants shall encourage their next tier suppliers to acknowledge and implement the Principles.

Fundamental to adopting the Principles is the understanding that a business, in all of its activities, must operate in full compliance with the laws, rules and regulations of the countries in which it operates. The Principles encourage Participants to consider going beyond legal compliance, drawing upon internationally recognized standards, to advance social and environmental responsibility.

The Principles consist of five sections 2-6. Sections 2, 3, & 4 outline standards for Labour, Health & Safety, and the Environment, respectively Section 5 outlines the elements of a system to manage conformity to the Principles. Section 6 adds standards relating to Business Ethics.



2 Labour

Participants are committed to uphold the human rights of workers, and to treat them with dignity and respect as understood by the international community.

Recognized standards such as the Universal Declaration of Human Rights (UDHR), Social Accountability International (SAI) and the Ethical Trading Initiative (ETI) were used as references in preparing the Principles and may be a useful source of additional information.

The Labour standards are:

2.1 Freely chosen employment

Forced, bonded or indentured Labour or involuntary prison Labour is not to be used. All work will be voluntary, and workers should be free to leave upon reasonable notice. Workers shall not be required to hand over government-issued identification, passports or work permits as a condition of employment.

2.2 Child Labour avoidance

Child Labour is not to be used in any stage of manufacturing. The term "child" refers to any person employed under the age of 15 (or 14 where the law of the country permits), or under the age for completing compulsory education, or under the minimum age for employment in the country, whichever is greatest. The use of legitimate workplace apprenticeship programs, which comply with all laws and regulations, is supported. Workers under the age of 18 should not perform hazardous work and may be restricted from night work with consideration given to educational needs.

2.3 Working hours

Workweeks should not exceed the maximum set by local law. Further, a workweek should not be more than 60 hours per week, including overtime, except in emergencies, unusual situations, or where it is accepted common local practice. All overtime hours worked shall be voluntary. Workers shall be allowed at least one day off per seven-day week.

2.4 Wages and benefits

Compensation paid to workers shall comply with all applicable wage laws, including those relating to minimum wages, overtime hours and legally mandated benefits. In compliance with local laws, workers shall be compensated for overtime at pay rates greater than regular hourly rates. Deductions from wages as a disciplinary measure shall not be permitted. The basis on which workers are being paid is to be provided in a timely manner via pay stub or similar documentation.

2.5 Humane treatment

There is to be no harsh and inhumane treatment, including any sexual harassment, sexual abuse, corporal punishment, mental or physical coercion or verbal abuse of workers: nor is there to be the threat of any such treatment.

2.6 Non-discrimination

Participants should be committed to a workforce free of harassment and unlawful discrimination. Companies shall not engage in discrimination based on race, colour, age, gender, sexual orientation, ethnicity, disability, pregnancy, religion, political affiliation, union membership or marital status in hiring and employment practices such as promotions, rewards, and access to training. In addition, workers or potential workers should not be subjected to medical tests that could be used in a discriminatory way with the exception of medical tests done as a legal requirement or to determine fitness for the job.

2.7 Freedom of association

Open communication and direct engagement between workers and management are the most effective ways to resolve workplace and compensation issues. Participants are to respect the rights of workers to associate freely, join or not join Labour organizations, seek representation, join workers' councils in accordance with local laws. Workers shall be able to communicate openly with management regarding working conditions without fear of reprisal, intimidation or harassment.



3 Health and Safety

MC recognizes that the quality of products and services, consistency of production, and workers' morale, are enhanced by a safe and healthy work environment. MC also recognizes that ongoing worker input and education are key to identifying and solving health and safety issues in the workplace. Recognized management systems such as OHSAS 18001 and ILO Guidelines on Occupational Safety and Health were used as references in preparing the Principles and may be a useful source of additional information (See References & Resources section for more information).

The health and safety standards are:

3.1 Occupational Safety

Worker exposure to potential safety hazards (e.g., electrical and other energy sources, fire, vehicle, and fall hazards) are to be controlled through proactive avoidance, proper design, engineering and administrative controls, preventative maintenance and safe work procedures (including lockout / tagout). Where hazards cannot be adequately controlled by these means, workers are to be provided with appropriate personal protective equipment. Workers shall not be disciplined for raising safety concerns.

3.2 Emergency Preparedness

Emergency situations and events are to be identified and assessed, and their impact minimized by implementing emergency plans and response procedures, including: emergency reporting, employee notification and evacuation procedures, worker training and drills, appropriate fire detection and suppression equipment, adequate exit facilities and recovery plans.

3.3 Occupational Injury and Illness

Procedures and systems are to be in place to manage, track and report occupational injury and illness, including provisions to:

- a) encourage worker reporting
- b) classify and record injury and illness cases
- c) provide necessary medical treatment
- d) investigate cases and implement corrective actions to eliminate their causes
- e) facilitate return of workers to work.

3.4 Industrial Hygiene

Worker exposure to chemical, biological and physical agents is to be identified, evaluated, and controlled. When hazards cannot be adequately controlled by engineering and administrative means, workers are to be provided with appropriate personal protective equipment.

3.5 Physically Demanding Work

Worker exposure to physically demanding tasks, including manual material handling and heavy lifting, prolonged standing and highly repetitive or forceful assembly tasks is to be identified, evaluated and controlled.

3.6 Machine Safeguarding

Where there is risk of injury, physical guards, interlocks and barriers are to be provided and properly maintained for machinery used by workers.

3.7 Dormitory and Canteen

Workers are to be provided with clean toilet facilities, access to potable water and sanitary food preparation and storage facilities. Worker dormitories provided by the Participant or a Labour agent are to be clean, safe, and provide emergency egress, adequate heat and ventilation and reasonable personal space.



4 Environmental

MC recognizes that environmental responsibility is integral to producing world-class products. In manufacturing operations, adverse effects on the community, environment and natural resources are to be minimized while safeguarding the health and safety of the public.

Recognized management systems such as ISO 14001 were used as a reference in preparing the Principles and may be a useful source of additional information. (See References section for more information).

The environmental standards are:

4.1 Environmental Permits and Reporting

All required environmental permits (e.g. discharge monitoring) and registrations are to be obtained, maintained and kept current and their operational and reporting requirements are to be followed.

4.2 Pollution Prevention and Resource Reduction

Waste of all types, including water and energy, are to be reduced or eliminated at the source or by practices such as modifying production, maintenance and facility processes, materials substitution, conservation, recycling and re-using materials.

4.3 Hazardous Substances

Chemical and other materials posing a hazard if released to the environment are to be identified and managed to ensure their safe handling, movement, storage, recycling or reuse and disposal.

4.4 Wastewater and Solid Waste

Wastewater and solid waste generated from operations, industrial processes and sanitation facilities are to be monitored, controlled and treated as required prior to discharge or disposal.

4.5 Air Emissions

Air emissions of volatile organic chemicals, aerosols, corrosives, particulates, ozone depleting chemicals and combustion by-products generated from operations are to be characterized, monitored, controlled and treated as required prior to discharge.

4.6 Product Content Restrictions

MC adheres to all applicable laws and regulations regarding prohibition or restriction of specific substances including labeling laws and regulations for recycling and disposal. MC also adheres to processes to comply with each agreed-upon customer-specific restricted and hazardous materials list.

5 Management System

MC has established a management system whose scope is related to the content of these Principles. The management system is designed to ensure (a) compliance with applicable laws, regulations and customer requirements related to MC's operations and products; (b) conformance with these Principles; and (c) identification and mitigation of operational risks related to these Principles. The management system also facilitates continual improvement.

The management system contains the following elements:

5.1 Company Commitment

Corporate social and environmental responsibility statements affirming MC's commitment to compliance and continual improvement.



5.2 Management Accountability and Responsibility

Clearly identified company representative[s] responsible for ensuring implementation and periodic review of the status of the management systems.

5.3 Legal and Customer Requirements

Identification, monitoring and understanding of applicable laws, regulations and customer requirements.

5.4 Risk Assessment and Risk Management

Process to identify the environmental, health and safety (*) and Labour practice risks associated with MC's operations. Determination of the relative significance for each risk and implementation of appropriate procedural and physical controls to ensure regulatory compliance to control the identified risks.

(*) Remark: Areas to be included in a risk assessment for health and safety are warehouse and storage facilities, plant/facilities support equipment and maintenance records, Laboratories and test areas, sanitation facilities (bathrooms), kitchen/cafeteria and worker housing /dormitories.

5.5 Performance Objectives with Implementation Plan and Measures

Written standards, performance objectives, targets and implementation plans including a periodic assessment of Participant's performance against those objectives.

5.6 Training

Programs for training managers and workers to implement MC's policies, procedures and improvement objectives.

5.7 Communication

Process for communicating clear and accurate information about Participant's performance, practices and expectations to workers, suppliers and customers.

5.8 Worker Feedback and Participation

Ongoing processes to assess employees' understanding of and obtain feedback on practices and conditions covered by these Principles and to foster continuous improvement.

5.9 Audits and Assessments

Periodic self-evaluations to ensure conformity to legal and regulatory requirements, the content of the Principles and customer contractual requirements related to social and environmental responsibility.

5.10 Corrective Action Process

The Corrective Action Request (CAR) process will be used for timely correction of deficiencies identified by internal or external assessments, inspections, investigations and reviews.

5.11 Documentation and Records

Appropriate documents and records will be maintained to ensure regulatory compliance and conformity to company requirements along with appropriate confidentiality to protect privacy.



6 Ethics

To meet social responsibilities and to achieve success in the marketplace, MC and its agents are to uphold the highest standards of ethics including:

6.1 Business Integrity

The highest standards of integrity are to be expected in all business interactions. Any and all forms of corruption, extortion and embezzlement are strictly prohibited resulting in immediate termination and legal actions.

6.2 No Improper Advantage

Bribes, significant gifts, kickbacks, or other unlawful means of obtaining undue or improper advantage are not to be offered or accepted.

6.3 Disclosure of Information

Information regarding business activities, structure, financial situation and performance is to be disclosed in accordance with applicable laws and regulations and prevailing industry practices.

6.4 Intellectual Property

Intellectual property rights are to be respected; transfer of technology and know-how is to be done in a manner that protects intellectual property rights and is subject to agreed upon confidentiality obligations.

6.5 Fair Business, Advertising and Competition

Standards of fair business, advertising and competition are to be upheld. Means to safeguard customer information should be available.

6.6 Protection of Identity

Programs that ensure the protection of supplier and employee whistleblower confidentiality are to be maintained.

6.7 Community Engagement

MC encourages community engagement to help foster social and economic development.

7 MICRO CRYSTAL further expects

Our suppliers will respect internationally proclaimed Human Rights and should avoid being complicit in human right abuses of any kind. Suppliers should respect the personal dignity, privacy and rights of every individual.

Suppliers are expected to demonstrate Energy Saving awareness as well as Emissions Reductions where applicable. Additionally, suppliers are expected to increase usage of Green Packaging (re-cycled, re-usable etc.) where feasible.

Suppliers must inform MICRO CRYSTAL if Tantalum, Tin, Tungsten and Gold from the Democratic Republic of Congo or the surrounding countries Sudan, Uganda, Rwanda, Burundi, United Republic of Tanzania, Zambia, Angola or Central African Republic are used in their products.



8 Reference documents

The following standards were used as references material in preparing these Principles and may be a useful source of additional information. The following standards may or may not be endorsed by each MC contractor, agent, or supplier.

Source Website Link	Source Website Link
ISO 9001 Quality Management System	http://www.iso.org/
ISO 14001 Environmental Management System	http://www.iso.org/
SA 8000 Social Accountability System	http://www.sa-intl.org/
Ethical Trading Initiative	http://www.ethicaltrade.org/
OHSAS 18001	http://www.ignet-certification.com/
Electronic Industry Code of Conduct (EICC)	http://www.eicc.info/
CFS Program: Compliant Gold Refiner List	http://www.conflictreesmelter.org
ILO Code of Practice in Safety and Health	http://www.ilo.org/public/english/protection/safework/cops/english/download/e000013.pdf
ILO International Labour Standards	http://www.ilo.org/public/english/standards/norm/index.htm
OECD Guidelines for Multinational Enterprises	http://www.oecd.org/
United Nations Convention Against Corruption (UNODC)	http://www.unodc.org/unodc/en/corruption/index.html
United Nations Global Compact	http://www.unglobalcompact.org/
Universal Declaration of Human Rights	http://www.un.org/Overview/rights.html

[FO-1115](#) Ethics principle