Global EHS - Lone Worker Standard

CONTROL INFORMATION

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1 Purpose

Micron acknowledges that there may be an increased risk to the health and safety of its employees, contractors, and vendors when performing certain job tasks alone, especially in areas that are not continuously occupied. This document specifies situations and locations that must be assessed to ensure the safety of lone workers and actions that must be taken to ensure a means of communication is available for them if they require assistance.

2 Scope

Items	Details
Site(s) Impacted	All Micron sites
Target Audience	Micron team members and their contractors/vendors
Applicability	This document covers instances where workers carry out their job tasks in isolation from other workers without close or direct supervision and the work that is being carried out poses a potential hazard or is taking place in a potentially hazardous environment. This document does not cover office/cubicle spaces which generally involve computer interfacing tasks, 24-hour manned manufacturing/production floors and those travelling to a work location. This document does not cover how the task is to be carried out or specific safety precautions to be taken while carrying out the task.

3 Roles and Responsibilities

Roles	Responsibilities
Global EHS	• Define requirements for evaluation of instances where workers may be required to work in isolation from other workers, and without close or direct supervision • Review and update this Standard biennially or as needed • Assure appropriate input from all related parties • Initiate the approval process
Site EHS/Safety Managers, Micron Team Members, Hosts	• Ensure compliance with requirements set out in this standard • Review, update, and/or create site safety procedures in compliance with requirements set in this standard. • Review the requirements and subsequent changes of this standard and identify actions to ensure the requirements are effectively implemented • Evaluate continuous compliance to the updated requirements of this standard at least once every 3 years or more frequently (when risk of noncompliance is present) and implement actions to correct deficiency(ies) identified during the compliance evaluation process

4 Terms and Definitions

Terms	Definitions
CDA	Compressed Dry Air
CUP	Central Utilities Plant
EHS	Environment, Health, and Safety
JHA	**Job Hazard Analysis** A technique that focuses on job tasks as a way to identify hazards before they cause an accident. A JHA focuses on the relationship between the worker, the task, the tools, and the work environment. Once identified, the hazards can be eliminated or controlled.
Lone Worker	A worker who performs an activity that is carried out in isolation from other workers without close or direct supervision. Additionally, a worker is further considered to be a lone worker if they work by themselves at a work site in circumstances where assistance is not readily available when needed (e.g. remote location[1], lack of regular traffic[2], area not normally occupied[3])
PM	**Preventive Maintenance** Maintenance (for example, oil checks, o-ring replacement) that is carried out at scheduled intervals, to ensure that a machine or equipment will perform as designed.
RA	**Risk Assessment** A procedure through which knowledge and experience of design, use, incidents and accidents and harm are brought together to measure risks for specified scenarios of the equipment being assessed. Risk assessment includes determining the limits of machinery, hazard identification, and risk estimation.
SOP	**Standard Operating Procedure** A comprehensive set of instructions for the operation of a process. They should provide a clear understanding of the detailed operating parameters and limits for safe operation in all process modes (e.g., start-ups, normal operation, shutdowns).
Worker	Person carrying out a job task, and includes Micron Team Member or Contractor / Vendor

5 References

Internal References	Link
Nil	Nil

External References	Link
Nil	Nil

[1] Remote Location: A work location that is not integral to the main site where oversight is not provided, and response is delayed.
[2] Lack of Regular Traffic: Other workers are not normally present and would not be expected to pass by the area over a thirty-minute period.
[3] Normally Occupied: A workspace that is under normal conditions within sight or sound of other workers.

6 Standard

Micron acknowledges that there may be an increased risk to the health and safety of its team members, contractors and vendors when performing certain job tasks alone, especially in areas that may not be continuously occupied. The following are criteria must be considered when allocating resources to a job task.

6.1 Legal or Standard Operating Procedure Requirements

Where local legal requirements, SOP job tasks, RAs or JHAs require at least 2 workers to complete the job, those requirements must always be met.

Some examples of where two workers are needed to complete a job task include, but may not be limited to:

- Certain equipment PMs
- Energized Electrical Work with voltage greater than 50V
- Work under raised flooring systems or other confined spaces
- Activities where fall protection is required
- Working in atmospheres requiring the use of a supplied air
- Work involving heavy machinery or equipment operations at isolated locations
- Transferring strong corrosive or highly toxic liquids from containers of one gallon (3.79L) or greater
- Breaking open a chemical delivery/waste/exhaust line that contains corrosive, highly toxic, or flammable gases or liquids (including gas cylinder changes)
- Opening a cabinet or enclosure containing pressurized corrosive or highly toxic gases or liquids
- Exposure to physical hazards from work on high temperature, high pressure or potentially asphyxiating systems including steam, large chillers, or pressurized CDA (i.e. 100 psi or greater)
- Job tasks with ergonomic hazards, such as lifting heavy items more than 50lbs (22kg)

6.2 Task Evaluation

Team Members and Hosts are expected to take particular care when evaluating hazards for job tasks that are to be completed alone. This shall be done through a Risk Assessment. If a worker is at significantly higher risk when working alone, arrangements must be made for an/a additional worker(s) to assist in the job task.

Any work carried out in the following listed locations or situations, must have a Risk Assessment completed to identify if working alone is acceptable or not:

- Gas pad
- Manufacturing or Production support areas, such as Sub-fab, Mezzanines, Plenum
- Facilities support areas, such as the Chiller Room, CDA room, Back-up Generator room or Electrical Room, Water and Waste treatment areas, Scrubber yard/Stack areas.
- Liquid and Gas Chemical Storage Rooms
- Work involving the application of Control of Hazardous Energies
- Trenching & Excavation Work
- Cranes & Hoisting activities (Lorry crane)

- Laboratories
- Garbage Disposal
- Loading Docks, Material Handling Areas
- Site Security Rounds

6.3 Means of Contact

Where job tasks are to be carried out by a lone worker, arrangements must be made to ensure that there is regular contact with the worker. This may be with a centralized control or security room, their supervisor, or any other person designated as a point of contact. Before the start of the work:

- The length of the job task and how often contact is made should be established – appropriate to the results of the evaluation of the task
- The area owner, where the task is being carried out, should be informed

An appropriate mode of contact should be available to ensure that should the worker be in distress, they are able to receive the assistance that they may need. Acceptable modes of contact are:

- Lone worker devices or automatic warning devices (e.g. panic alarms, no movement alarms, automatic distress management systems), or
- Mobile phone, telephone or radio transmitting device (e.g. worker may call for assistance or be called at regular intervals)
- Controlled periodic checks (e.g. in-person or via monitoring on closed circuit television)

6.4 Training

All lone workers must be sufficiently trained and competent in:

- completing their tasks properly.
- understanding potential risks and the subsequent precautions to take.
- reacting in the event of an emergency.

All training must be documented.

7 Appendices

Nil

8 Document Control

Items	Details
ECN Facility	CORP EHS
ECN Area	EHS GENERAL
Approval	This document is approved by: GLOBAL_EHS_SEAL_LT
Notification	Notification of changes to this document is managed through Micron's Engineering Change Notification (ECN) process to the following: • GLOBAL_EHS • GLOBAL_EHS_MANAGERS • GLOBAL_EHS_TEAM_MEMBERS • GLOBAL_FAC_NOTIFY • GLOBAL_FAC_MANAGER • KEG_PROBE • TSE_KEG_MOD • TSE_KEG_COK_INTERFACE • TSE_KEG_SSD • TSE_KEG_BURNATE • TSE_TEE_INTEGRATION • SIGDOC_GLOBAL_EHS_NTF • PDE_EQUIPMENT
Review	This document will be reviewed at least biennially (once per two years) by Global EHS / PSM through the Periodic Document Review (PDR) process.

9 Revision History

Rev	Date	Description	Requester
0	19 Feb 2020	**ECN Number**: 001049012 First published version	HEATHERC
0	06 Jan 2022	**ECN Number**: Not workflowed Periodic Document Review (PDR) completed. Minor grammatical changes made.	HEATHERC
0	27 Oct 2023	**ECN Number**: Not workflowed Periodic Document Review (PDR) completed. No changes required.	JIEHUILIM

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