



Table of Contents Health and Safety

ealth and Safety	
Standard	3
Definitions	3
Standard Expectations	3
HS.1 Health and Safety Management System	3
HS2. General Work Environment	4
HS.3 Bloodborne Pathogens	5
HS.4 Canteen Management	5
HS.5 Childcare Facility Management	
HS.6 Confined Spaces	7
HS.7 Control of Hazardous Energy	7
HS.8 Dormitory Management	8
HS.9 Drinking Water	
HS.10 Electrical Safety	
HS.11 Electroplating	
HS.12 Emergency Action	
HS.13 Ergonomics	
HS.14 Fall Protection	
HS.15 Fire Safety Management	
HS.16 Hazardous Materials	
HS.17 Heat Stress Management	
HS.18 Hot Work	
HS.19 HSE Committee	
HS.20 Injury and Illness Management System	
HS.21 Laser Safety	
HS.22 Machine Guarding	
HS.23 Medical Services and First Aid	
HS.24 Nanomaterial Management	
HS.25 Occupational Exposure Limits	
HS.26 Occupational Health Management	
HS.27 Occupational Noise Exposure	
HS.28 Personal Protective Equipment (PPE)	
HS.29 Powered Motor Vehicle	
HS.30 Radiation	
HS.31 Respiratory Protection	
HS.32 Sanitation	
HS.33 Supplier Safety	25



Health and Safety

Standard

Suppliers will comply with all legally mandated standards providing a clean, safe and healthy work environment with sufficient conditions to prevent accidents and injuries. Appropriate accommodation will be provided to workers in connection with pregnancy and maternity responsibilities.

Definitions

- Acclimatization: The body's adaptation to working in the heat.
- Bloodborne pathogens: Pathogenic micro-organisms that are present in human blood and can cause disease in humans. Examples of pathogens include hepatitis B and HIV.
- <u>Cannister or cartridge</u>: A container affixed to a respirator with a filter, sorbent, or catalyst, or combination of these items, which removes specific contaminants from the air passed through the container.
- <u>Confined space</u>: Any space that is large enough for a worker to enter, has limited means for entry and exit, and is not designed for continuous worker occupancy. Examples include manholes, sewers, tunnels, boilers, storage tanks, and pits.
- <u>Electroplating</u>: Coating a metal object with another metal using an electrical current passed through a chemical solution.
- <u>Ergonomics</u>: Fitting the job to the people who have to do it through the design of equipment and procedures.
- First aid: Medical treatment administered to an injured or ill person before professional medical care is available.
- Fit test: The use of a protocol to qualitatively or quantitatively evaluate the fit of a respirator on an individual.
- <u>Hazardous energy</u>: Any stored or residual energy in machinery that may cause harm as a result of unexpected energizing start up or release of stored energy. Examples include electrical energy, thermal energy, chemical reactions, mechanical motion, potential, or stored energy.
- <u>Heat stress</u>: The general name for several medication conditions such as heat exhaustion, heat cramps, and heat stroke caused by working in hot areas.
- <u>HEPA filter</u>: High efficiency particulate air filter, composed of a mat of randomly arranged fibers. This type of filter can remove at least 99.97% of airborne particles 0.3 microns in diameter.
- <u>Hot work</u>: Welding, cutting, grinding, or any other activity involving open flames, sparks, or other ignition sources which may cause smoke or fire, or that may trigger detection systems.
- Lockout/tagout (LOTO): Specific practices and procedures to safeguard workers from the unexpected energization or startup of machinery and equipment, or the release of hazardous energy during service or maintenance activities.
- <u>Machine guarding</u>: Methods to protect the operator and other workers in the machine area from hazards such as ingoing nip points, rotating parts, flying debris, and sparks. Examples include barrier guards, two hand tripping devices, and interlocks.
- <u>Nanoparticles</u>: Particles with a diameter between 1 and 100 nanometers.
- <u>Personal protective equipment (PPE)</u>: Protective equipment for eyes, face, head, and extremities, protective clothing, respiratory devices, and protective shields and barriers to protect from bodily harm through absorption, inhalation, or physical contact.
- <u>Potable water</u>: Water that is clean and healthy to drink.
- <u>Powered motor vehicle</u>: Mobile power propelled vehicle used to carry, push, pull, lift, stack or tier materials. Examples include forklifts, pallet trucks, tractors, platform lift trucks, motorized hand trucks, rider trucks fork trucks, and lift trucks.
- Qualitative fit test (QLFT): A pass/fail fit test to assess the adequacy of a respirator fit that relies upon the individual's response to the rest agent.
- <u>Quantitative fit test (QNFT)</u>: An assessment of the adequacy of respirator fit by numerically measuring the amount of leakage into the respirator. A QNFT is necessary for respirators that must achieve a fit factor greater than 10.

Standard Expectations

Management will establish and implement policies and procedures ensuring compliance with PopSockets's requirements, as well as all national laws, regulations and procedures concerning health and safety.

HS.1 Health and Safety Management System

HS.1.1 Policies and procedures related to health and safety must be written, either on paper or digitally, and supported by proper and accurate records.

HS.1.2 Management performs a documented annual risk assessment on each issue listed below as appropriate that includes the following at a minimum:

- Identification of risks;
- Evaluation of any risks identified; and
- Identification and implementation of control measures to reduce or mitigate risk.

HS.1.3 A Plan-Do-Check-Act management approach should be developed, including:

- Periodic review of local laws and regulatory requirements related to health and safety.
- Assigned responsibilities and accountabilities to management, workers, and designated personnel.



- Annual review of any documented risk assessments.
- Training of workers on role-appropriate information.

Procedures that enable workers to raise health and safety concerns and to protect workers who allege health and safety violations. Conducting root cause analysis on workplace issues, including accidents, and taking proactive action to prevent future issues.

HS.1.4 All workers receive awareness training that covers all relevant policies and procedures related to health and safety. For workers involved in the management of health and safety-related tasks, machinery, or equipment, management provides training related to maintenance and safety.

HS.1.5 Any documentation regarding health and safety, including those that are required by applicable laws (e.g. health and safety policies, SDS, emergency procedures) are made available in the prescribed manner and must be maintained in the local language and a language understood by workers.

HS.1.6 If not provided by law, management must provide protection to workers who allege violations of health or safety protections (see Labor Standards, WV.1.5).

HS.1.7 Management maintains, at all times, possession of all legally required and valid permits and certificates related to health and safety issues.

HS.2 General Work Environment

HS.2.1 Every worker has the right to a workplace free from recognized hazards causing or likely to cause death or serious physical harm to the worker or the environment.

HS.2.2 Management maintains the following standards related to appropriate accommodations for pregnant, breast-feeding, and young workers at a minimum:

- Management allows and provides for the temporary modification of working hours.
- Management allows and provides for temporary job transfers to a function or work environment that is safe for the worker, their unborn child, or their recently born child.
- Management allows and provides for accommodations related to night work.
- Management allows and provides breast-feeding breaks, designated areas for breast-feeding or feeding-related needs, and access to refrigerated storage where breast milk can be kept.
- Management accommodates other reasonable benefits or needs on a case-by-case basis.
- Management ensures workers have access to services related to pregnancy, maternity leave, and childcare where appropriate.
- Management informs workers who work with potentially hazardous materials of the risks to their reproductive health, and ensures workers are not engaged in work that constitutes a substantial risk to reproductive health.

HS.2.3 Management maintains the following standards related to housekeeping at a minimum:

- All places of employment are kept clean, dry, and in a state of good repair.
- Walkways are clear of tripping hazards and other obstructions.
- All electrical panels, eyewash and shower stations, and other emergency equipment have a minimum clearance of 0.9 meters/3ft.
- Storage areas are kept orderly at all times. Materials are not stacked within 45 centimeters/18 in of the ceiling or fire sprinklers, whichever is lower.
- Spills are cleaned immediately, and waste is disposed of properly. Warning signs should be used on any wet floors.
- All windows and transparent surfaces in doors are protected from breakage. Markings or signs in a language understood by workers must indicate when there is a risk of people walking into transparent doors or partitions.

HS.2.4 Adequate working space is provided to allow workers to perform work without risk to health, safety, and well-being.

- Each facility must provide a minimum of 11 cubed meters/37 cu ft per worker.
- For calculation purposes, rooms over 3 meters/10 ft should be counted as 3 meters/10 ft.

HS.2.5 Adequate lighting is provided for safe working conditions.

HS.2.6 Management maintains the following standards related to exits at a minimum:

- Exit paths are arranged and marked so that the route of escape is unmistakable.
- All doorways or passageways that do not lead to a safe exit are marked as "NO EXIT" in a language understood by workers.
- Passageways that dead-end and do not lead to safe exit may not be longer than 16.67 meters/50 ft.
- Exits from all parts of the building are kept free and unobstructed from egress. No door or passageway is locked or fastened to prevent escape.
- Exits are arranged such that at least two different paths exist from every workplace within the facility provides alternate means of escape in the event of an exit being blocked by fire or another emergency.
- Workers are not blocked within their workstations.

HS.2.7 Management maintains the following standards related to stairs and stairwells at a minimum:

- Stairs are affixed with railings if they have four steps or more.
- Stairs have a minimum width of 0.56 meters/22 in.
- Stairs have treads with slip resistant surfaces.
- Stairs have uniform step height and width throughout any flight of stairs.

HS.2.8 Management maintains the following standards related to loading, unloading, and storage of materials at a minimum:

- Management implements measures preventing unplanned departure of vehicles before loading or unloading operations begin.
- Management implements measures to ensure uncoupled trailers are stable.
- Trailers are inspected when powered motor vehicles are used.
- Management ensures the guarding of loading bays or docks when not in use.
- Management ensures safe stacking of materials in terms of height and leaning.
- Each racking installation displays a unique identification number and the safe or maximum working load.
- Only trained workers carry out new racking installations, repairs, modifications or removal.
- Where there is an identified risk of damage or injury from racking, an annual inspection of racking installations is completed by a competent person.
- All material storage system structural damage is reported and repaired immediately.

HS.3 Bloodborne Pathogens

HS.3.1 Management maintains procedures to prevent contact with blood or other potentially infectious materials, including all bodily fluids.

HS.3.2 Management provides readily available hand washing facilities and disinfectants for potential bloodborne pathogen-contaminated spills.

HS.3.3 Management provides personal protective equipment (PPE) such as disposable gloves and CPR guards.

HS.3.4 Management makes available a disposal container for sharp objects such as glass, blades, and sewing needles.

HS.3.5 Management disposes of any equipment, product, or material suspected of being contaminated with bloodborne pathogens in biohazard-labeled bags or containers as appropriate and in accordance with applicable waste regulations.

HS.3.6 Medical vaccination programs and follow up are performed by or under the supervision of a licensed physician or by or under the supervision of another licensed healthcare professional and are done at no cost to the worker.

HS.3.7 A Hepatitis B vaccination series is made available to all workers who have occupational exposure.

HS.3.8 Post exposure evaluation and follow-up is performed on workers who have had an exposure incident.

HS.3.9 Affected workers are provided with a copy of medical results or opinions within 15 days of a medical procedure.

HS.3.10 The following documentation should be kept at a minimum:

- Policies and procedures related to bloodborne pathogens, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to bloodborne pathogens.
- All relevant, legally required, and valid permits and certificates related to bloodborne pathogens, such as those related to sanitation.
- Relevant incident records from the past five years.
- Medical records for the length of employment plus 30 years.
- Records of hepatitis B vaccinations, or written statements of voluntary declination.
- Post exposure evaluation and follow-up records.

HS.4 Canteen Management

HS.4.1 Management maintains the following standards related to food service workers at a minimum:

- A medical examination for food service workers is performed at least annually, and workers are identified as free from communicable diseases before continuing work.
- Procedures for reducing the transmission of communicable diseases are understood and followed.
- Hairnets, gloves, and aprons are worn while preparing and serving food.
- Hands are thoroughly washed and disinfected prior to coming into contact with food.
- Certification or training is completed on serving or preparing food.

HS.4.2 Management maintains the following standards related to food preparation areas at a minimum:

Perishable food items are stored on site in mechanical refrigeration capable of maintaining a temperature of not more than 5°C/41°F.

- Washbasins provide both hot and cold running water.
- Cooking, serving and eating utensils are washed and disinfected after each use.
- Tabletops and counters are cleaned and disinfected after each use.
- Food preparation areas are free of rodent and insect infestations.
- Garbage and refuse are stored in leak proof, non-absorbent containers that are emptied daily.
- Cooking oils are not disposed of into sanitary or storm water drains.
- Food is prepared, stored, and served in a safe and sanitary manner in accordance with all applicable laws and international standards.

HS.4.3 Management maintains the following standards related to restrooms used by food service workers at a minimum:

- Food service workers thoroughly wash and disinfect hands after using the restroom.
- Signs are posted requiring hands to be washed after restroom use.

HS.4.4 Management maintains a response mechanism and procedures to handle a food borne related illness or contamination event.

HS.4.5 The following documentation should be kept at a minimum:

- Policies and procedures related to canteen management, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to canteen management.
- All relevant, legally required, and valid permits and certificates related to canteens.
- Relevant incident records from the past five years.
- Medical records for the length of employment plus 30 years.

HS.5 Childcare Facility Management

HS.5.1 Management maintains the following standards related to childcare facilities at a minimum:

- Facilities must meet legal and regulatory requirements and appropriate PopSockets standards, whichever are higher.
- Facilities are not connected to or a part of production facilities or those that house chemicals or hazardous materials.
- Children are not able to access production facilities or those that house chemicals or hazardous materials to visit relatives or workers
 or for any other reason.
- Children under 17 or under the legal minimum working age, whichever is higher, are only allowed to visit the production facility as part of a specially arranged tour or event that does not involve work of any kind.
- Childcare facility hours must match the working hours of the facility shift schedule, following any regulations provided by law.
- Hot surfaces are insulated so that children cannot come into contact with them.
- Electrical outlets within reach of children are provided with receptacle covers when not in use.
- Fireplaces are guarded.
- Medicines, poisons, and other dangerous substances are stored in a locked cabinet.
- The premises are clean and well maintained at all times.
- Management conducts semi-annual fire evacuation drills with children present.
- Outdoor play areas are safe, secure, and any open water or pits are fenced or covered.
- Management makes potable drinking water available without the use of common drinking cups or utensils.
- Cold and hot water not exceeding 43°C/110°F is supplied to lavatories accessible to children.
- Toilets are within a reasonable distance from the childcare facility and offer privacy.
- Individual clean cribs, cots or mats suitable to the child's age and level of development and clean linens are provided.
- For evening care, each child is provided with a firm, waterproof mattress with at least 0.9 meters/3ft separating cribs, cots, and mats.
- There is a full-time trained facility director for all facilities with more than 60 children.
- Management maintains health records for each child, including details of immunizations, medications, communicable diseases, and evidence of neglect or unusual injuries. Any instances of neglect or unusual injuries are reported to the facility manager.

HS.5.2 Management maintains the following standards related to working with children at a minimum:

- All childcare workers must be fully trained and licensed to provide the level of care necessary at the facility. Where local legal requirements are missing, childcare workers must have at least some vocational training for childcare.
- Any event organizer conducting an onsite visit is familiar with legal and regulatory requirements.
- Individuals qualitied in first aid and CPR are available.
- Management maintains records of written parental/guardian consent to act in place of the parent to legally give first aid/ medical treatment or for transporting children in cars/ busses or any other form of transportation.
- Parent/guardian contact information is kept on file.
- Prior to employment, management screens any workers working with children during overnight events or directly coaching children, such as in sports activities.
- Children are only be released to an authorized parent/guardian or designated individual.

HS.5.3 The following documentation should be kept at a minimum:

- Policies and procedures related to childcare facility management, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to childcare facility management.
- All relevant, legally required, and valid permits and certificates related to childcare facility management.
- Relevant incident records from the past five years.
- Current employee screening records.
- Current parent/guardian contact information.
- Fire drill records from the past three years.

HS.6 Confined Spaces

HS.6.1 Management maintains the following standards related to permit-required confined spaces at a minimum:

Confined spaces that identified as medium or high risk in the risk assessment have a permit for entry.

Unauthorized workers are restricted from entering permit-required confined spaces.

Warning signs are posted on all access points. Signs must read the following, in a language understood by workers: "DANGER – PERMIT REQUIRED. CONFINED SPACE. DO NOT ENTER."

HS.6.2 Management maintains policies and procedures regarding the responsibilities of permit-required confined space entrants, entrant supervisors, and attendants.

HS.6.3 Management maintains the following information related to confined space entry permits at a minimum:

- Confined space name;
- Entry purpose, date, and duration of work including entry expiry date and time;
- A list of authorized entrants, entry attendants, and entry supervisor;
- Hazards associated with the confined space as identified in the risk assessment and how to control them;
- Any relevant isolation procedures;
- Acceptable entry conditions;
- Any legally required atmospheric testing and ongoing monitoring results;
- Rescue and emergency requirements;
- Communication procedures for attendants and entrants;
- Required entry equipment, such as tripods and winches or full body harnesses; and
- Details of other permits, such as those related to hot work.

HS.6.4 Management annual calibrates all monitoring and test equipment and ensures pre-entry self-calibration.

HS.6.5 Management maintains an annual documented process for confined space entry procedures that includes workers and subcontractors.

HS.6.6 The following documentation should be kept at a minimum:

- Policies and procedures related to confined spaces, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to confined spaces.
- Relevant incident records from the past five years.
- Confined space entry permits from the past year.
- Monitoring equipment calibration records from the past three years.
- Monitoring records from the past 3 years.

HS.7 Control of Hazardous Energy

HS.7.1 Management maintains machine specific documented LOTO procedures for equipment with multiple energy sources.

- HS.7.2 Management provides individually assigned locks, keys, and tags to secure energy control devices.
 - Only workers who install locks and tags can remove them.

HS.7.3 Management maintains the following procedures related to the isolation and de-energization of equipment at a minimum:

- Disconnection or shut down of engines or motors that power mechanical systems;
- De-energizing electrical circuits by disconnecting power/ lockout;
- Blocking gas or liquid flows in hydraulic, pneumatic or stream systems;
- Blocking machine parts against motion that may result from gravity;
- Dissipation of any stored energy after system has been de-energize; and
- Venting of gas or liquids from pressure vessels, tanks, or accumulators until internal pressure is at atmospheric pressure, in consideration of worker and environmental safety.

1426 Pearl Street, Suite 400 Boulder, CO 80302

HS.7.4 Management ensures discharging of capacitors through grounding.

HS.7.5 Management ensures releasing or blocking of springs that are under tension or compression.

HS.7.6 Management verifies isolation and de-energization.

HS.7.7 Management maintains the following standards related to the re-energization of equipment at a minimum:

- Management inspects work, removal of locks, safe start up, and re-energizing once workers are clear of danger points.
- When LOTO devices are temporarily removed to test or position the machine or equipment, management provides adequate
 protection to workers.

HS.7.8 The following documentation should be kept at a minimum:

- Policies and procedures related to LOTO, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to LOTO.
- All relevant, legally required, and valid permits and certificates related to LOTO.
- Relevant incident records from the past five years.

HS.8 Dormitory Management

HS.8.1 Management maintains the following standards related to dormitories at a minimum:

- Housing is structurally sound, in good repair, clean, secure, separate from production facilities and chemical and hazardous waste, and provides safe protection to the occupants against the elements.
- · Housing has appropriate response capabilities from local emergency response personnel including fire, medical, and police agencies.
- Housing has proper safety protections in place such as fire and emergency equipment, emergency exits, and lighting.
- Each living area provides for a minimum of 4 square meters/43sqft. of living space per occupant, with provisions for private storage of personal effects for each individual.
- Adequate lighting and electric services are provided in all living areas.
- Provisions for the sanitary collection and disposal of garbage are provided.
- Housing meets legal and regulatory requirements regarding fire safety, sanitation, protection, and electrical and mechanical standards.

HS.8.2 Management maintains the following standards related to sleeping quarters at a minimum:

- Individual beds, cots, or bunks are provided to each occupant, except triple bunks, which are prohibited.
- Management ensures any bedding materials provided by the facility is clean and sanitary.
- Separate sleeping areas are provided for each gender.
- Sleeping quarters are kept clean and safe.

HS.8.3 Management maintains the following standards related to showers and toilet areas in dormitories at a minimum:

- Toilet facilities are provided at a ratio of at least one toilet for each 15 occupants.
- Toilet facilities are within 50 meters/165 ft of each living unit.
- Toilet facilities are separated by gender and marked as such.
- Toilet facilities are cleaned and sanitized daily.
- All shower and washing areas provide pressurized, hot and cold portable water.
- Shower and washing areas are within 50 meters/165 ft of each living unit.
- Showerheads are placed a minimum of 1 meter/3 ft apart with a ratio of one showerhead for each 15 occupants.
- Separate shower and washing facilities are provided for each gender type and marked as such.
- Shower and washroom floors are constructed of nonabsorbent materials and sanitized daily.
- Shower and washroom are clean and safe.
- Showers and toilets can be accessed freely at any time without any unreasonable restriction on time and frequency.

HS.8.4 Eating and foot preparation areas are provided.

HS.8.5 Management maintains the following standards related to fire safety and first aid in dormitories at a minimum:

- Emergency action plans are posted in conspicuous locations throughout the facility and include detailed evacuation procedures in the event of an emergency.
- Fire extinguishing equipment is provided in a readily accessible location not more than 30 meters/100 ft from each living area.
- A minimum of two exits are clearly marked on each floor.
- Semi-annual emergency and fire drills are conducted and documented.
- Management provides readily accessible first aid kits at a ratio of one kit per 50 occupants.
- Hazardous chemicals are stored only in designated areas.

HS.8.6 The following documentation should be kept at a minimum:

- Policies and procedures related to dormitories, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- All relevant, legally required, and valid permits and certificates related to dormitories.
- Risk assessments conducted related to dormitories.
- Relevant incident records from the past five years.

HS.9 Drinking Water

HS.9.1 Potable drinking water at a reasonable temperature is provided to all workers.

HS.9.2 Non-potable water sources are labeled as such.

HS.9.3 Water dispensing units are closed to the hazardous work environments.

HS.9.4 Sanitary storage and cleaning areas are established for individual drinking cups or containers. Cups or containers are available in needed amounts and are safe and sanitary.

HS.9.5 Non-potable water is boiled or otherwise decontaminated prior to being used for food preparation or cooking.

HS.9.6 Written response procedures are in place for contamination or suspected contamination of facility drinking water sources.

HS.9.7 Workers are free to access water at all times.

• Management does not place any undue restrictions on drinking water in terms of time and frequency.

HS.9.8 If a facility utilizes ground well or surface water as a source, provided drinking water has a water quality sampling program in place.

HS.9.9 Management maintains the following standards regarding drinking water sampling at a minimum:

Sampling frequency based on number of workers:

Number of Workers	Minimum Samples Per Month
25 – 999	1
1,000 – 4,999	10
5,000 – 9,999	15
10,000 – 19,999	20
> 20,000	50

- Bacteria and Disinfection Acceptance Levels:
 - Fecal coliforms = 0.0
 - o 99.9% inactivation of Giardia Lamblia Cysts, 99.99% inactivation of viruses
 - Residential disinfectant concentration entering the system is not less than 0.2 mg/L
 - o Measured total chlorine, combined chlorine or chlorine dioxide is detectable in 95% of the samples each month

HS.9.10 The following documentation should be kept at a minimum:

- Policies and procedures related to drinking water, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to drinking water.
- All relevant, legally required, and valid permits and certificates related to water and sanitation.
- Relevant incident records from the past five years.

HS.10 Electrical Safety

HS.10.1 Management maintains the following standards related to electrical safety at a minimum:

- Only trained and authorized workers conduct repairs to electrical equipment.
- Individuals working on energized electrical circuits hold appropriate qualifications and are authorized to perform such work.
- Electrical distribution areas are guarded against accidental damage such as through specifically designed rooms or using substantial guard posts and rails.
- Access to electrical distribution rooms is restricted to authorized workers.
- Electrical distribution panels, breakers, switches, and junction boxes are completely enclosed and protected from moisture.
- Electrical control devices are labeled to identify the equipment they control.
- Distribution panels have 0.9 meters/3 ft of clearance.

- Conduits are fully supported throughout their length. Non-electrical attachments to a conduit are prohibited.
- Electrical wiring and cables are in good condition with no exposed circuits.
- Extension cords are used on a temporary basis only.
- Ground Fault Circuit Interruption (GFCI) is provided for locations with moisture present.
- Site-specific electrical safety rules are available in a language understood by workers.

HS.10.2 Management maintains the following standards related to electrical inspections at a minimum:

- Management maintains a testing and inspection schedule for electrical equipment. The frequency of these inspections depends on the local country regulations, type of equipment, the environment it is used in, and the frequency of use.
- Major modifications to new and existing facilities are inspected to verify compliance with codes and standards.
- Management maintains a process for prioritizing and correcting electrical deficiencies.

HS.10.3 Management ensures electrical-rated safety shoes, boots, and googles are worn as required per the risk assessment.

HS.10.4 All tools used for electrical work are properly insulated.

HS.10.5 Electrical-rated matting is installed in front of all distribution panels in electric utility rooms.

HS.10.6 The following documentation should be kept at a minimum:

- Policies and procedures related to electrical safety, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to electrical safety.
- All relevant, legally required, and valid permits and certificates related to electrical safety.
- Relevant incident records from the past five years.

HS.11 Electroplating

HS.11.1 Management reviews SDS for all hazardous substances to identify possible hazards to workers that may cause short- or long-term health risks.

HS.11.2 Management conducts health surveillance activities to detect adverse effects from chemicals at an early stage.

HS.11.3 Management maintains a reporting mechanism for workers to identify potential exposure or health issues related to electroplating.

HS.11.4 Management provides specific personal protective equipment (PPE) for electroplating purposes and ensures its usage.

HS.11.5 Management maintains procedures ensuring proper disposal of hazardous waste generating during the electroplating process.

HS.11.6 The following documentation should be kept at a minimum:

- Policies and procedures related to electroplating, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to electroplating.
- All relevant, legally required, and valid permits and certificates related to electroplating.
- Relevant incident records from the past five years.

HS.12 Emergency Action

HS.12.1 Management maintains a list of names or job titles of people who can be contacted for further information or explanation of duties regarding the emergency action plan.

HS.12.2 Management maintains a list of roles and responsibilities of emergency personnel, including command and control.

HS.12.3 Management provides means to report emergencies, including posting of emergency numbers in a language understood by workers.

HS.12.4 Management provides evacuation procedures and posted plans in a language understood by workers.

HS.12.5 Management identifies and provides for workers who remain behind must remain behind to operate critical plant equipment or operations before they evacuate.

HS.12.6 Management identifies and assists handicapped individuals during an evacuation.

HS.12.7 Management maintains procedures related to rescue and medical duties.

1426 Pearl Street, Suite 400 Boulder, CO 80302

HS.12.8 Management maintains a system to account for all workers during an evacuation.

HS.12.9 Management maintains a communication process to update workers on emergency status, such as return to work or go home.

HS.12.10 Management conducts a semi-annual evacuation drill.

HS.12.11 Management conducts semi-annual emergency action and planning program review, including that local authorities are notified of health, safety, or environmental emergencies such as accidental discharge or release of chemical or waste.

HS.12.12 Management maintains the following standards related to notification alarm systems at a minimum:

- Alarm systems provide adequate warning for workers to act per procedures.
- Any notification or alarm system is perceivable above ambient noise and light levels.
- Any notification or alarm system is distinctive with a recognizable emergency lighting system.
- Any notification or alarm system provides means for manual activation.
- Any notification or alarm system must be operational at all times except when testing or undergoing repairs or maintenance.
- Semi-annual and periodic testing or maintenance of the system is performed by competent individuals.

HS.12.13 The following documentation should be kept at a minimum:

- Policies and procedures related to emergency action, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to emergency action.
- All relevant, legally required, and valid permits and certificates related to emergency action.
- Relevant incident records from the past five years.
- Evacuation drill documentation from the past three years.
- Notification or alarm system testing and maintenance documents from the past three years.
- Current emergency action plan.

HS.13 Ergonomics

HS.13.1 The work environment and workstations are designed and established in a way that minimizes potentially damaging motion or bodily stress as much as possible.

HS.13.2 Management provides a channel for reporting of musculoskeletal disorders (MSDs), their signs and symptoms, and MSD hazards.

HS.13.3 Management trains workers in proper lifting techniques, and items such as lifting belts are provided (see HS.28).

HS.13.4 Management maintains a worker involvement process that includes periodic communications about ergonomics and review of worker suggestions related to ergonomic issues such as safe lifting technique and use of lifting belts.

HS.13.5 Management maintains a process to correct ergonomic problems presented via reporting of ergonomic hazards or injury trends.

HS.13.6 For repetitive activities, management provides opportunities for breaks or changes in activity.

HS.13.7 Management assesses individual computer workstations for ergonomic considerations.

HS.13.8 Management incorporates ergonomics into the design of equipment and processes.

HS.13.9 Equipment such as mats and lifting belts are provided and properly maintained.

HS.13.10 The following documentation should be kept at a minimum:

- Policies and procedures related to ergonomics, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to ergonomics.
- All relevant, legally required, and valid permits and certificates related to ergonomics.
- Relevant incident records from the past five years.
- Medical records for the length of employment plus 30 years.

HS.14 Fall Protection

HS.14.1 A full body harness is required for any unprotected height of 1.8 meters/6 ft or greater.

1426 Pearl Street, Suite 400 Boulder, CO 80302



HS.14.2 Fall protection equipment is inspected before and after each use.

HS.14.3 Management conducts monthly fall protection equipment inspections.

HS.14.4 Management ensures proper maintenance, cleaning, and storage of fall protection equipment.

HS.14.5 Management ensures proper use of fall protection systems.

HS.14.6 Management ensures proper handling, storage, and securing of tools and material.

HS.14.7 Management restricts access to areas where there is a risk of fall or falling material.

HS.14.8 Management maintains documented emergency procedures for removal of injured worker.

HS.14.9 Management maintains the following standards related to ladder safety at a minimum:

- Inventory of ladder safety systems.
- Ensuring safe use of ladder safety systems.
- Inspection requirements for ladder safety systems.
- All fixed ladders greater than 2.1 meters/7 ft have cages built around them at a height of 2.1 meters/7 ft.
- Safe use, maintenance, and inspection of access equipment, such as scissor and aerial lifts and scaffolding.

HS.14.10 Management maintains the following standards related to floor and wall openings at a minimum:

- Any place where people can fall greater than 1.2 meters/4 ft is guarded by a standard railing and toe board on all open sides except where there is an entrance to a ramp, stairway or fixed ladder. Standard railing consists of top rail, mid rail, and posts.
- Where there is a potential hazard of material or equipment falling through a wall or floor opening, the opening is protected with a toe guard or enclosing screen.

HS.14.11 The following documentation should be kept at a minimum:

- Policies and procedures related to fall protection, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to fall protection.
- All relevant, legally required, and valid permits and certificates related to fall protection.
- Relevant incident records from the past five years.

HS.15 Fire Safety Management

HS.15.1 Management maintains the following standards related to fire prevention at a minimum:

- Management minimizes the storage of flammable and combustible materials.
- Management stores flammable substances in an approved cabinet.
- Management implements a smoking policy, such as smoking in designated areas only.
- Management ensures electrical equipment is maintained in a safe and good working condition.

HS.15.2 Management maintains the following standards related to fire protection at a minimum:

- The location of all fire protection equipment is documented in a language understood by workers.
- Appropriate fire detectors and alarm systems are in place (see HS.12.12).
- Sprinkler systems are installed where appropriate with procedures for addressing when they are impaired.
- Firefighting equipment provided is suitable for the type of fire expected in the area and provided in sufficient number throughout the workplace.
- Firefighting equipment is easily accessible, simple to use, and maintained and stocked as prescribed.
- Firefighting equipment is indicated by signs in a language understood by workers.
- Fire extinguishers and hoses are visually inspected each month.
- Management maintains an inspection and maintenance plan for all firefighting equipment.
- There are a sufficient number of emergency routes and exits indicated by signs in a language understood by workers which allows for the prompt escape of workers in an emergency.
- Emergency routes and exits are kept clear at all times. Emergency exits are unlocked during regular working hours and open outwards to a place of safety.
- Management posts diagrams showing emergency routes and exits.
- Emergency lighting is available, tested, and maintained.
- Workers expected to use firefighting equipment in an emergency are trained on the hazards and techniques of fighting fire. Training takes place upon hire with periodic refresher training.

HS.15.3 The following documentation should be kept at a minimum:

Policies and procedures related to fire safety management, demonstrating inclusion of the standards above.

- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to fire safety management.
- All relevant, legally required, and valid permits and certificates related to fire safety management.
- Relevant incident records from the past five years.
- Current locations of fire protection equipment.
- Inspection and maintenance records from the past five years.

HS.16 Hazardous Materials

HS.16.1 Safety data sheets (SDS) are posted for all chemicals and hazardous materials in the local language and a language understood by workers if different from the local language.

- No hazardous material is allowed on site without an SDS.
- Any SDS are made available to workers at any time in all areas where hazardous materials are used and stored.

HS.16.2 Hazardous materials are stored in suitable containers and are labeled with relevant hazard information. Containers meet the following standards at a minimum:

- Containers are in good condition;
- Containers are compatible with their contents;
- Containers have readable labels in the local language and a language understood by workers, if different from the local language, that are in good condition;
- Containers are closed at all times when not in use;
- Containers have proper ventilation; and
- If containing a flammable material, containers are bonded and grounded or earthed, and stored away from ignition sources.

HS.16.3 Management maintains the following standards related to compressed gas cylinders at a minimum:

- Compressed gas cylinders are stored upright and secured to prevent them from falling.
- Compressed gas cylinders are labeled properly in a language understood by workers to identify the gas and associated hazards.
- Compressed gas cylinders are stored away from ignition sources, corrosive atmospheres, and extreme weather conditions.
- Empty and full compressed gas cylinders are labeled appropriately and segregated.

HS.16.4 Management maintains the following standards related to hazardous material transfer at a minimum:

- Drip trays or pans are placed under dispensing containers.
- Dispensing occurs on impervious surfaces.
- Leaks or spills are cleaned up immediately.

HS.16.5 A documented spill response plan and equipment are available where hazardous materials are used and stored.

HS.16.6 Disposal of chemical and hazardous materials is performed safely and in accordance with relevant legal requirements and international standards.

HS.16.7 Workers receive training, appropriate to their job responsibilities, concerning the hazards, risks, and the safe use of chemicals and other hazardous substances.

HS.16.8 The following documentation should be kept at a minimum:

- Policies and procedures related to hazardous materials, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to hazardous materials.
- All relevant, legally required, and valid permits and certificates related to the purchase and storage of chemicals.
- Relevant incident records from the past five years.
- Current hazardous material inventory.
- Current SDS for all hazardous substances.
- Current spill response plan.
- Archived SDS for the length of a chemical's use plus 30 years.

HS.17 Heat Stress Management

HS.17.1 Management maintains the following standards related to heat stress prevention at a minimum:

- Management creates control measures used to eliminate or reduce risks related to heat stress.
 - Management selects and distributes appropriate protective clothing.

HS.17.2 Management maintains the following standards related to work practices in preventing heat stress at a minimum: • Management ensures water is replenished during shifts as needed.

- Workers have access to shade at all times for preventative recovery periods.
- Management responds to symptoms of possible heat illness.
- Management maintains contact provisions for emergency medical services.

HS.17.3 Management identifies workplace locations and work assignments where a potential for heat stress exists.

HS.17.4 Management provides comfortable and safe working temperature conditions, including the following at a minimum:

- Sedentary work: 16° C/60° F to 30° C/86° F.
- Work involving physical effort: 13° C/55° F to 27° C/81° F.

HS.17.5 If work temperature ranges cannot be maintained, heat/cold stress procedures are on engineering, administrative controls, and/or personal protective equipment to minimize the effects of heat stress are in place, including the following at a minimum:

- Management provides accessible potable drinking water sufficient to provide each worker up to one quart per hour. When temperatures exceed 30° C/86° F, ice should be provided to cool the water.
- Workers have access to shade during entire shift and as a general rule there must be enough shade to accommodate, at the same time, 25 percent of the workers on a shift.
- Metal storage sheds and other out-building do not provide "shade" unless they provide a cooling environment comparable to shade in open air. For example, they are mechanically ventilated or open to air movement.
- Shade is accessible within a time frame not to exceed 200 m or 5 minutes by walking.
- Provisions for Preventative Recovery Periods (PRP). A PRP is necessary if a worker believes that a rest break is needed to cover from the heat or if a worker exhibits indications of heat illness.

HS.17.6 The following documentation should be kept at a minimum:

- Policies and procedures related to heat stress management, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to heat stress management.
- All relevant, legally required, and valid permits and certificates related to heat stress management.
- Relevant incident records from the past five years.

HS.18 Hot Work

HS.18.1 Workshops where hot work takes place are maintained in good and clean working condition.

HS.18.2 All tools and equipment used for hot work must be in safe and proper working order.

HS.18.3 Management and workers maintain access to the manufacturer's equipment manuals.

HS.18.4 Management provides personal protective equipment for workers involved in hot work.

HS.18.5 Preventative maintenance and repair includes the following at a minimum:

- Scheduling and prioritizing;
- Detail of work completed;
- Name of worker and on what date they completed work; and
- Maintenance/repair records for each piece of equipment or equipment.

HS.18.6 Management maintains safety procedures and a hot work permit system whenever hot work is performed in any area not specifically designated for that operation. The hot work permit includes the following information at a minimum:

- The location and nature of hot work;
- The time and duration of work;
- Precautions to be taken before work starts, during, and after completion of work;
- Name of supervisor and individual conducting work;
- Any personal protective equipment required.
- Any firefighting equipment requirements; and
- A list of authorized persons who can sign the permit.

HS.18.7 The following documentation should be kept at a minimum:

- Policies and procedures related to hot work, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to hot work.
- Hot work permits from the past three years.
- Relevant incident records from the past five years.
- Preventative maintenance records from the past three years.



• Repair records for the life of the equipment.

HS.19 HSE Committee

HS.19.1 Management establishes an HSE committee.

HS.19.2 The committee is comprised of at least two members if the location has 20 people or less, and at least four members if the location has more than 20 people.

• This includes approximately an equal number of management and worker representatives.

HS.19.3 Committee members are representative of the major work activities.

HS.19.4 The committee elects a chairperson.

HS.19.5 Committee representatives serve a continuous term of at least one year.

HS.19.6 Committee meetings are conducted each month except months when quarterly inspections are conducted.

• Topics covered in each month's agenda should include the previous month's action items, any workplace safety inspection outstanding items, a review of incidents, and a review of worker suggestions.

HS.19.7 The committee maintains meeting minutes. Meeting minutes are communicated or available to all workers.

HS.19.8 The committee establishes a system to allow the members to obtain HSE related suggestions.

HS.19.9 Management responds to all HSE committee recommendations before the next meeting, or within 30 days, whichever happens first.

HS.19.10 The committee establishes procedures for investigating all HSE related incidents including injury accidents, illnesses, deaths, chemical spills, and fires.

This does not mean the committee is required to conduct the investigations.

HS.19.11 The HSE committee assesses the HSE investigation process annually and make corrections or improvements as necessary for making the process more efficient and effective.

HS.19.12 Management maintains the following standards related to quarterly workplace safety inspections at a minimum:

- Inspection results are documented.
- Recommendations are provided on how to eliminate hazards and unsafe work practices.
- All non-compliances are tracked to completion.

HS.19.13 The following documentation should be kept at a minimum:

- Policies and procedures related to the HSE committee, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to the HSE committee.
- Relevant incident records from the past five years.
- HSE committee meeting minutes from the past three years.
- Workplace safety inspections from the past three years.

HS.20 Injury and Illness Management System

HS.20.1 Management ensures all incidents, such as work-related injuries, illnesses, accidents resulting in property damage, or near misses, are reported immediately to relevant national and/or local authorities as required by applicable laws.

Any policies, procedures, or systems in place related to injury and illness management are regularly tested and reviewed.

HS.20.2 All fatalities or serious injuries, such as incidents resulting in 24-hour inpatient hospitalization, permanent disfigurement, loss of any body part, or loss of sight, are communicated to PopSockets staff within eight hours.

HS.20.3 Management maintains for at least one year the following information related to incident investigation reports at a minimum:

- Name of site location;
- Specific location and time of incident;
- Relevant facts and witness information;
- Names and numbers of fatalities or hospitalized workers;
- Contact person and phone number;
- Complete description of the incident and all contributing causes; and
- Corrective measures necessary to prevent reoccurrence.

1426 Pearl Street, Suite 400 Boulder, CO 80302

HS.20.4 Management takes the following steps related to injury and illness management at a minimum:

- Incidents are kept confidential where possible.
- Management communicates with the injured worker(s), such as on wages and medical restrictions.
- · Management communicates any provisions on returning to work, including any work restrictions and transitional work.
- Management enforces any work restrictions.

HS.20.5 Relevant local or national authorities are notified of illnesses, accidents, and environmental emergencies according to local law or regulatory requirements.

HS.20.6 Management maintains the following information related to illness or injury at a minimum:

- Name of worker;
- Date of injury or illness;
- Where injury or illness occurred;
- General description of accident;
- Number of restricted calendar days of work due to injury or illness; and
- Number of calendar days away from work due to injury or illness.

HS.20.7 Each event is documented and entered into a relevant database no later than six working days after management receives the information.

HS.20.8 An annual summary of injuries and illnesses must be posted in an area accessible to workers and include the following data at a minimum:

- Total number of injury and illness events;
- Total number of deaths;
- Total number of days away from work due to injury and illness;
- Total number of cases with restricted work activity or job transfers; and
- The incident rate, calculated as: ((total number of days away from work + total cases with job transfer or restriction) times 200,000)/total hours worked by all workers

HS.20.9 The following documentation should be kept at a minimum:

- Policies and procedures related to injury and illness management systems, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to injury and illness management systems.
- All relevant, legally required, and valid permits and certificates related to injury and illness management.
- Relevant incident records from the past five years.

HS.21 Laser Safety

HS.21.1 Lasers are designed with guarding and interlocks to prevent exposure to the beam.

HS.21.2 Areas or machinery with lasers are restricted to authorized personnel only.

HS.21.3 Management posts appropriate signage in areas with laser usage in a language understood by workers.

HS.21.4 Management provides appropriate personnel protective equipment to workers whose jobs require usage of lasers.

HS.21.5 Any worker working with lasers has handling and safety requirements written in their job specifications.

HS.21.6 Management provides procedures for handling or working with lasers.

HS.21.7 Management maintains emergency procedures for lasers.

HS.21.8 Laser systems are calibrated and tested per manufacturer's recommendations.

HS.21.9 All LASER system deficiencies are corrected prior to operation.

HS.21.10 The following documentation should be kept at a minimum:

- Policies and procedures related to laser safety, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to laser safety.
- All relevant, legally required, and valid permits and certificates related to laser safety.

- Relevant incident records from the past five years.
- Calibration records for testing equipment from the past three years.
- Maintenance records for the life of the equipment.

HS.22 Machine Guarding

HS.22.1 Management evaluates new or modified equipment by first considering eliminating, then protection against, hazards.

HS.22.2 Equipment, machinery, and tools are adequately guarded and maintained.

All equipment, machinery, and tools are in good operating condition and guards are securely in place.

HS.22.3 Safety instructions are posted near related machinery or available upon request in a language understood by workers.

HS.22.4 Safety guards do not create additional hazards.

HS.22.5 Fans and other rotating equipment located less than 2.1 meters/7 ft above any working surface are guarded with openings less than 1.25 centimeters/0.5 in.

Machines with rotating parts are enclosed and interlocked with automatic shut off mechanism.

HS.22.6 Machines or equipment that can walk or move during operation are secured.

HS.22.7 Management conducts annual inspections of guarding on machines.

HS.22.8 Preventative maintenance and repairs meeting lockout/tagout requirements are conducted.

HS.22.9 Workers receive training in the proper use and safe operation of machinery, equipment, and tools they use.

• Workers are incentivized through positive means such as bonuses and training to use machinery safely. They are not punished, fined, or encouraged through negative means such as financial penalties.

HS.22.10 Workers are not punished of penalized in any way for refusing to work without proper guarding or in unsafe conditions.

HS.22.11 Management maintains the following standards related to elevators, escalators, and material lifts at a minimum:

- The safe lifting load is indicated.
- If equipment is not intended for human use, there is signage in a language understood by workers indicating such.
- Elevators, escalators, and material lifts are positioned or installed to prevent the risk of injury to users and bystanders.
- Interlocks, barriers and safety devices where appropriate are properly installed and operational to prevent injury.
- Preventative maintenance is performed regularly.
- Repair and maintenance activities adhere to lockout/tagout requirements.
- Barriers and signs in a language understood by workers are used to prevent entry when equipment is inoperable.
- Management maintains procedures addressing elevator, escalator, and material lift use in the event of an emergency.
- Third-party inspection and certification is conducted at intervals that meets local legal requirements.
- The vertical clearance to any overhead obstruction is at least 2.1 meters/7 ft.

HS.22.12 The following documentation should be kept at a minimum:

- Policies and procedures related to machine guarding, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to machine guarding.
- All relevant, legally required, and valid permits and certificates related to machinery inspections.
- Relevant incident records from the past five years.
- Evaluation records for new and modified equipment for the life of the equipment.
- Inspection and maintenance records from the past three years.
- Repair records for the life of the equipment.

HS.23 Medical Services and First Aid

HS.23.1 Management documents and communicates internal or external resources available to respond to any medical emergency.

HS.23.2 Emergency telephone numbers are posted conspicuously by each telephone.

HS.23.3 Management communications the location and availability of medical facilities and emergency services.

HS.23.4 Records of first aid and medical treatments are maintained.

HS.23.5 Management maintains the following standards related to first aid responders at a minimum:

- There are an adequate number of medical staff and workers trained in first aid techniques, if necessary or required by law, to cover the number of workers and hazards at the facility during all working hours, including any type of overtime.
- Medical staff, if any, are licensed and recognized via legal and regulatory requirements.
- Management communicates to workers the names, locations, and contact information for certified first aid responders.
- All first aid responders maintain any required first aid certifications.

HS.23.6 First aid materials and medical equipment, such as first aid kits, AEDs, and stretchers, are available in sufficient numbers throughout the workplace. They are always adequately stocked and are easily accessible to management, supervisors, and workers.

HS.23.7 Materials and equipment are monitored to ensure they have not expired.

• If expiration occurs, materials and equipment are promptly replaced and disposed of safely and per legal requirements.

HS.23.8 First aid kits include the following at a minimum:

- Sterile adhesive bandages in assorted sizes;
- Absorbent compresses;
- Sterile eye pads;
- Triangular bandages;
- Burn treatment; and
- Disposable gloves.

HS.23.9 Management ensures visible signage in a language understood by workers for first aid boxes and equipment.

HS.23.10 Monthly inspections and replenishments meet minimum content requirements.

HS.23.11 Management maintains the following standards related to eyewash and body flushing equipment at a minimum:

- Water must be potable(drinkable).
- The velocity of water is such that no injury occurs.
- The minimum flow rate for water is at a minimum 1.5 liters/1.5 qt for a minimum of 15 minutes.
- No sharp projections are found near eyewash or body flushing equipment.
- Nozzles are covered to prevent airborne contamination.
- A control valve is easily located and when activated remains on until turned off.
- There should be no hazardous material within 30 meters/100 ft of eyewash or body flushing equipment.
- Eyewash and body flushing equipment are accessible and identifiable with a visible sign in a language understood by workers.
- Water nozzles are positioned between 83.8 centimeters/33 in and 114.3 centimeters/45 in from the floor.
- Self-contained units containing a reservoir of flushing fluid is constructed of materials that will not corrode. The flushing fluid is
 protected from airborne contaminants.
- Water temperature in units is maintained between 15° C/60° F and 35° C/90° F.
- All equipment and piping are freeze protected.
- Plumbed eyewash units are activated weekly to flush the line and verify proper operation. Self-contained units must be inspected
 according to manufacturers' specifications.

HS.23.12 Medical facilities are established and maintained within the workplace as required by applicable laws.

HS.23.13 The following documentation should be kept at a minimum:

- Policies and procedures related to medical services and first aid, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to medical services and first aid.
- All relevant, legally required, and valid permits and certificates related to medical services and first aid.
- Relevant incident records from the past five years.
- Inspection records of first aid kits and eyewash and body flushing equipment from the past year.

HS.24 Nanomaterial Management

HS.24.1 Management maintains the following standards related to engineering controls at a minimum:

- Control techniques such as source enclosure, or isolating the generation source from the worker, and local exhaust ventilation systems are effective at capturing airborne nanoparticles, based on what is known of nanoparticle motion and behavior in air.
- HEPA filters are used in dust collection systems where nanoparticles are present.
- The use of ventilation systems is designed, tested, and maintained using approaches recommended by local regulations.
- HS.24.2 Management maintains the following standards related to work practices regarding nanomaterials at a minimum:
 - Work areas are cleaned at the end of each work shift using either a HEPA-filtered vacuum cleaner or wet wiping methods.

- Dry sweeping or air hoses are not used to clean work areas.
- Cleanup is conducted in a manner that prevents worker contact with waste.
- The storage and consumption of food or beverages in workplaces is prevented where nanomaterials are handled.
- Hand-washing facilities should be provided, and workers encouraged using them before eating, smoking, or leaving the worksite.
- Facilities for showering and changing clothes should be provided to prevent the inadvertent contamination of other areas caused by the transfer of nanoparticles on clothing and skin.
- The evaluation and selection of appropriate personal protective equipment to correspond with existing conditions in the workplace, including nanoparticle resistant gloves and respiratory protection, meet local laws and regulations.
- Management undertakes systematic evaluation of exposures to ensure that control measures are working properly and that workers
 are being provided the appropriate personal protective equipment.

HS.24.3 The following documentation should be kept at a minimum:

- Policies and procedures related to nanomaterial management, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to nanomaterial management.
- All relevant, legally required, and valid permits and certificates related to nanomaterial management.
- Relevant incident records from the past five years.
- Current fit test records for respirators.
- Inspection records from the past three years.

HS.25 Occupational Exposure Limits

HS.25.1 Management maintains a documented process for approval of all materials, processes, and equipment that may impact worker exposure.

Management actively substitutes less hazardous or non-hazardous materials and processes where possible.

HS.25.2 Management conducts an exposure assessment, such as through sampling, for all contaminants.

HS.25.3 Management reviews worker complaints and absentee records to determine the possibility of exposure-related health issues.

HS.25.4 Management aligns with the most restrictive recognized regulation or consensus standard of their nation's legal or health requirements. Standards selected provide the greatest level of protection to workers in the work environment.

HS.25.5 Consideration for maintaining contaminants below exposure limits is given to engineering controls, such as through local exhaust or general ventilation, before use of personal protective equipment (see HS.24.1).

- Local exhaust is vented directly outdoors or to pollution control equipment.
- HVAC outdoor air intakes and other vents are not located in close proximity to potential sources of contamination, such as downwind of exhausts, near places where motor vehicle emissions collect.

HS.25.6 Plumbing, electrical, lighting and noise are installed and maintained to prevent or minimize risk and protect worker health and safety. All areas are properly ventilated.

HS.25.7 Exposure control equipment are in proper working order, inspected and maintained.

HS.25.8 Management maintains a treatment plan for biological hazards, such as mold, when found to be present at unacceptable levels.

HS.25.9 The following documentation should be kept at a minimum:

- Policies and procedures related to occupational exposure limits, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to occupational exposure limits.
- All relevant, legally required, and valid permits and certificates related to occupational exposure.
- Relevant incident records from the past five years.
- Inspection and maintenance records from the past three years.
- Laboratory analytical results from sampling from the past five years.

HS.26 Occupational Health Management

HS.26.1 Management maintains the following standards related to clinics at a minimum:

- Clinics are required for all locations with more than 1000 workers.
- All health care staff are trained in the practice of occupational and emergency medicine.
- Services are facilitated for women, migrants, and others who may face social or language barriers to care.

1426 Pearl Street, Suite 400 Boulder, CO 80302

- When doctors, nurses, or other health professionals are on site, they are qualified to address the broader health needs of men and women workers, including providing referrals to accessible, affordable, quality services off site.
- Procedures for admission, treatment, transportation and discharge of patients are in place in addition to curative care.
- Management ensures the testing, maintenance, and calibration of medical and surveillance instruments.
- Management maintains return-to work-programs for existing workers who have been absent from work as a result of infectious or contagious diseases or pregnancy.
- Clinics can treat of infectious diseases.
- Infection control occurs, and appropriate equipment is on hand, such as sterile gloves, CPR barrier mask, autoclave, disposable needles, and suture kits.
- A minimum of one private bed exists for every 1000 workers.
- The clinic is equipped with a mechanical ventilation system that can maintain the temperature between 21° C/70° F and 27° C/80° F).
- The clinic strictly adheres to safety and sanitation standards.

HS.26.2 Management maintains the following standards related to health surveillance at a minimum:

- A structured health surveillance program exists based on the results of the risk assessment.
- A system exists to analyze the results of surveillance programs and provide guidance for corrective action and medical treatment.
- Evaluation is done of the general health of workers at all stages of the employment.
- A licensed doctor, occupational healthcare professional, or competent authority performs the health surveillance.
- Occupational health data is reviewed for trend identification and health promotion activity planning.
- Preventative measures are in place as a means of reducing the overall health risk of the workforce, such as smoking cessation or vaccination clinics.
- Each worker has access to their own health medical records.

HS.26.3 The following documentation should be kept at a minimum:

- Policies and procedures related to occupational health management, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to occupational health management.
- All relevant, legally required, and valid permits and certificates related to occupational health.
- Relevant incident records from the past five years.
- Medical records for the length of employment plus 30 years.

HS.27 Occupational Noise Exposure

HS.27.1 If noise levels are above 85 dB, a noise exposure program exists to reduce noise levels and protect workers from noise levels that will cause hearing loss.

HS.27.2 Management monitors noise when there has been a significant change in machinery or production processes.

HS.27.3 Management posts signs in a language understood by workers indicating areas where hearing protection is required.

HS.27.4 Management ensures the availability and use of hearing protection in required areas.

HS.27.5 Management evaluates hearing protection to determine effectiveness for indicated noise levels.

HS.27.6 Management maintains a hearing testing program for affected workers. The program has the following characteristics at a minimum:

- There is no cost to workers;
- Hearing tests are conducted by a certified medical professional;
- Testing is conducted both initially at the start of the program and annually thereafter;
- Affected workers are notified of their results; and
- Workers receive follow up or corrective action with any change in hearing as identified through the testing program.

HS.27.7 The following documentation should be kept at a minimum:

- Policies and procedures related to occupational noise exposure, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to occupational noise exposure.
- All relevant, legally required, and valid permits and certificates related to occupational noise.
- Relevant incident records from the past five years.
- Medical records for the length of employment plus 30 years.



HS.28 Personal Protective Equipment (PPE)

HS.28.1 Workers are provided, at no cost, with all appropriate and necessary PPE to effectively prevent unsafe exposure to health and safety hazards, including medical waste.

HS.28.2 Management determines the suitability of the PPE presently available and, as necessary, select new or additional equipment that provides protection from hazards greater than the minimum required.

• Where exposure to multiple and simultaneous hazards is possible, adequate protection against the highest level of each of the hazards is provided or recommended for purchase.

HS.28.3 Workers are trained on the use and maintenance of PPE.

- Training takes place upon hire with periodic refresher training offered to all workers.
- Management ensures use of PPE as necessary.

HS.28.4 PPE is donned according to appropriate use applications and does not create an additional risk.

HS.28.5 All personal protective clothing and equipment is of safe design and construction for the work to be performed and maintained in a sanitary and reliable condition. Only those items of protective clothing and equipment that local legal requirements may be procured or accepted for use.

HS.28.6 Management maintains the following standards related to eye and face protection at a minimum:

- Prevention of eye injuries require that all persons who may be in eye hazard areas wear protective eyewear. This includes workers, visitors, researchers, third parties, or others passing through an identified eye hazard area. To provide protection for these personnel, management procure a sufficient quantity of goggles and/or plastic eye protectors that afford the maximum amount of protection possible. If these personnel wear their own glasses, workers are provided with suitable eye protection to wear over them.
- Suitable protectors are used when workers are exposed to hazards from flying particles, molten metal, acids or caustic liquids, chemical liquids, gases or vapors, bio-aerosols, or potentially injurious light radiation.
- Contact lenses wearers wear appropriate eye and face protection devices in a hazardous environment.
- Side protectors are used when there is a hazard from flying objects.
- Goggles and face shields are used when there is a hazard from chemical splash.
- Face shields are worn over primary eye protection, such as safety glasses and goggles.
- For workers who wear prescription lenses, eye protectors either incorporate the prescription in the design or fit properly over the prescription lenses.
- Equipment fitted with appropriate filter lenses is used to protect against light radiation. Tinted and shaded lenses are not filter lenses unless they are marked or identified as such.

HS.28.7 Management maintains the following standards related to head protection at a minimum:

- Head protection is furnished to, and used by, all workers engaged in construction and other miscellaneous work.
- Head protection is required to be worn by engineers, inspectors, and visitors at construction sites when hazards from falling or fixed objects or electrical shock are present.
- Bump caps/skull guards are issued and worn for protection against scalp lacerations from contact with sharp objects.

HS.28.8 Management maintains the following standards related to foot protection at a minimum:

- Safety shoes or boots with impact protection are required to be worn when carrying or handling materials such as packages, objects, parts of heavy tools that could be dropped and for other activities where objects might fall onto the feet.
- Safety shoes or boots with compression protection are required for work activities involving skid trucks, such as manual materials handling cars, or other activities in which materials or equipment could potentially roll over a worker's feet.
- Safety shoes or boots with puncture protection are required where sharp objects such as nails, wire, tacks, screws, large staples, or scrap metal could be stepped on by workers, causing a foot injury.

HS.28.9 Management maintains the following standards related to hand protection at a minimum:

- Suitable gloves are worn when hazards from chemicals, cuts, lacerations, abrasions, punctures, burns, biologicals, and harmful
 temperature extremes are present.
- Glove selection is based on performance characteristics of the gloves, conditions, duration of use, and hazards present. One type of glove will not work in all situations.

HS.28.10 Management maintains the following standards related to skin protection at a minimum:

- Skin protection is worn when there is a possibility of chemical splashes to the body, when the atmosphere may contain contaminants
 that could damage the skin or be absorbed by the skin, or when contaminants could remain on the street clothes of a worker. The
 amount of coverage depends on the area of the body that is likely to be exposed. For small controlled processes, an apron may be
 sufficient; for work above the head, a full body coverall may be required.
- Procedures for reporting and replacing damaged PPE exist.
- Skin protection is maintained in clean, good working condition, and stored properly.
- Skin protection is provided and repaired free of charge by the employer.



• Skin protection is inspected quarterly at a minimum.

HS.28.11 The following documentation should be kept at a minimum:

- Policies and procedures related to personal protective equipment, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to personal protective equipment.
- All relevant, legally required, and valid permits and certificates related to PPE.
- Relevant incident records from the past five years.

HS.29 Powered Motor Vehicle

HS.29.1 Management maintains the following standards related to vehicle safety at a minimum:

- Management ensures periodic preventive maintenance of powered motor vehicles.
- Faulty equipment is immediately withdrawn or repaired.
- Repairs are carried out by a competent person.
- Management conducts a pre-use inspection to ensure safe working condition.
- Management maintains written safe operation rules.
- Management ensures segregation of pedestrians and powered motor vehicles.
- Management provides a reporting channel and process for all incidents and near misses.
- Battery charging and refilling areas are safe and secure.
- Chargers are secured, covered and protected from the elements.
- Management ensures there is no smoking within 30 meters/100 ft of battery charging stations.
- Management provides appropriate personal protective equipment and spill response equipment (see HS.28).
- Eye wash/shower facilities are available (see HS.23.11).
- Management ensures housekeeping practices allow for the safe operation of powered motor vehicles (see HS.2.3).

HS.29.2 Management maintains the following standards related to traffic management at a minimum:

- Management considers one-way systems to reduce or eliminate the need for reversing where possible.
- Management institutes protection for vehicles reversing, such as reversing alarms or spotters.
- Management sets site speed limits.
- Management ensures use of convex mirrors at blind spots if the blind spot cannot be eliminated.
- Management installs and maintains external lighting.
- Management provides appropriate personal protective equipment, such as high visibility jackets and safety shoes.
- Management implements site driving rules.
- Management institutes a process to control external drivers, such as through site rules and waiting arrangements.
- Vehicles are in good working order; lights, brakes, and tires, are properly maintained.
- Management ensures the safety of drivers and workers during loading and unloading.
- Management ensures the safety of workers when powered motor vehicles are entering the facility.
- All drivers are licensed either by a certification program run by management and/or the appropriate government body or agency given the vehicle type.

HS.29.3 Management maintains a transportation safety promotion program that includes the following topics at a minimum:

- Seat belt and helmet usage;
- Speed control;
- Child restraints;
- Drinking and driving; and
- Licensing and insurance.

HS.29.4 Powered motor vehicle certified drivers are physically able to operate vehicles in a safe manner.

HS.29.5 The following documentation should be kept at a minimum:

- Policies and procedures related to powered motor vehicles, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to powered motor vehicles.
- All relevant, legally required, and valid permits and certificates related to powered motor vehicles.
- Relevant incident records from the past five years.
- Pre-use inspection forms from the past three months.
- Maintenance and repair records for the life of the powered motor vehicle.
- Third party inspection records where applicable.

HS.30 Radiation

HS.30.1 Management maintains the following standards related to radiation sources at a minimum:

- Radiation sources are designed with guarding and interlocks to prevent overexposure.
- Annual occupational radiation exposure for an individual does not to exceed three rem per year.
- Management restricts radiation areas to authorized personnel only.
- Radiation areas have signage and postings in a language understood by workers.
- Management conducts medical surveillance for high exposure workers or as required by regulations.
- Management maintains a response plan for damaged sources.
- Management develops job-specific procedures for handling or working with radiation sources.
- Management maintains emergency procedures related to radiation.
- Maintenance and calibration of radiating equipment are conducted according to the manufacturer's recommendations.
- Management instills work practices that minimize radiation exposure.

HS.30.2 Management conducts an annual review of its radiation program that includes the following topics at a minimum:

- Procedures;
- Radiation surveys;
- Interlocks;
- Leakage;
- Dosimetry, if required; and
- Worker evaluation.

HS.30.3 The following documentation should be kept at a minimum:

- Policies and procedures related to radiation, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to radiation.
- All relevant, legally required, and valid permits and certificates related to radiation.
- Relevant incident records from the past five years.
- Annual reviews from the past three years.
- Calibration records for testing equipment from the past three years.
- Maintenance records for the life of the equipment.

HS.31 Respiratory Protection

HS.31.1 If respirators are to be used to reduce the exposure of workers to hazardous air contaminants, management develops and implements a written respiratory protection program with worksite-specific procedures. The plan includes the following at a minimum:

- A qualified program administrator oversees the program.
- Jobs in which workers may be exposed to breathing air contaminated with harmful levels of dusts, fumes, sprays mists, fogs, smokes, vapors, gases or radioactive material are identified as potential situations for need of respiratory protection.
- The program determines eligibility and medical evaluation requirements to wear a respirator.

HS.31.2 Management maintains the following standards related to the selection of respirators at a minimum:

- Management selects a respirator certified by a relevant domestic body that is used in compliance with the conditions of its certifications.
- Management identifies and evaluates respiratory hazards in the workplace, including a reasonable estimate of worker exposures and
 identification of the contaminant's chemical state and physical form.
- Where exposure cannot be identified or reasonably estimated, the atmosphere is considered immediately dangerous to life or health.

HS.31.3 Management maintains the following standards related to medical evaluations for respirators at a minimum:

- Management provides a medical evaluation to determine a worker's ability to use a respirator before fit testing and use.
- Management identifies a physician or other licensed/certified health care professional to perform medical evaluations using a medical questionnaire or an initial medical examination that obtains the same information as the medical questionnaire.
- Contactors obtain a written recommendation regarding the worker's ability to use the respirator from the physician or health care professional conducting medical evaluations.
- Additional medical evaluations are required under certain circumstances, such as if a worker reporting medical signs or symptoms
 related to respirator use, a reevaluation is recommended either by the physician/health care professional or through observations
 made during the fit testing evaluation, changes occur in workplace conditions increasing the physiological burden on the worker, or
 when an annual review of worker medical status is not required.

HS.31.4 Management maintains the following standards related to fit testing for respirators at a minimum:

- All workers using a negative or positive pressure tight-fitting face piece respirator pass an appropriate qualitative fit test or quantitative fit test.
- Fit testing is required before initial use, whenever a different respirator face piece is used, and at least annually thereafter.

HS.31.5 Management maintains the following standards related to the maintenance and care of respirators at a minimum:

- Exclusive-use respirators are cleaned as often as necessary to maintain sanitary conditions.
- Respirators are cleaned before being worn by different individuals when issued to more than one worker.
- Emergency-use respirators and those used in fit testing and training are cleaned after each use.

HS.31.6 Management maintains the following standards related to the identification of filters, cartridges, and canisters for respirators at a minimum:

- All filters, cartridges, and canisters used in the workplace are labeled and color-coded with according to local regulations.
- Labels are not removed and remain legible.
- Cartridges are appropriate for the environment in which they are used.

HS.31.7 Management maintains the following standards related to change schedules for cannisters or cartridges at a minimum:

- Filters, cartridges, and canisters are monitored and changed based upon a pre-determined schedule with consideration for contaminant type and related exposures.
- Change schedules may be determined by either experimental or analytical methods, manufacturer's recommendation or by using mathematical models.

HS.31.8 The following documentation should be kept at a minimum:

- Policies and procedures related to respiratory protection, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to respiratory protection.
- All relevant, legally required, and valid permits and certificates related to respiratory protection.
- Relevant incident records from the past five years.
- Current respirator fit test records.
- Inspection records from the past three years.
- Records of medical evaluations.
- A written copy of the current program.

HS.32 Sanitation

HS.32.1 Management keeps all workplaces, toilets, canteens, kitchens, and clinics clean, dry, and in a good state of repair.

HS.32.2 Management constructs and maintains every workplace to prevent rodents, insects, or other vermin.

HS.32.3 Management provides protection from a wet environment when work tasks result in wet conditions.

HS.32.4 Garbage and refuse is stored in leak proof, non-absorbent containers that are emptied daily.

HS.32.5 Spills are cleaned immediately, and waste must be disposed of properly. Warning signs should be used on wet floors.

HS.32.6 An adequate number of separate toilets for each gender, with consideration for privacy for each individual and gender, is provided based on the following ratios:

Number of Workers	Minimum Number of Toilets
1 – 15	1
16 – 35	2
36 – 55	3
56 - 80	4
81 – 110	5
111 – 150	6
Over 150	1 additional fixture per 40 workers

HS.32.7 All toilet facilities have adequate ventilation and enclosed drainage pipes.

HS.32.8 All toilets are cleaned and disinfected at least daily.

HS.32.9 Management does not place any undue restrictions on toilet use in terms of time and frequency.

HS.32.10 Washbasins with hand soap are provided in all work areas.

HS.32.11 Individual paper towels, air blowers, or clean sections of continuous cloth toweling adjacent to all washbasin areas are provided.

HS.32.12 The following documentation should be kept at a minimum:

- Policies and procedures related to sanitation, demonstrating inclusion of the standards above.
- Supporting documentation for policies and procedures indicating regular review, such as records of document change or data analysis.
- Risk assessments conducted related to sanitation.
- All relevant, legally required, and valid permits and certificates related to sanitation.
- Relevant incident records from the past five years.

HS.33 Supplier Safety

HS.33.1 Management maintains the following standards related to a qualification process for any supplier or subcontractor performing equipment or facility maintenance at a minimum:

- Each affected supplier completes a prequalification form including historical HSE performance, minimum liability insurance requirements, and implementation of applicable safety programs and training.
- Management maintains an evaluation process for accepting or rejecting suppliers.
- Management documents a listing of qualified suppliers.
- Management performs an annual evaluation of listed qualified suppliers.

HS.33.2 Management maintains the following standards related to supplier or subcontractor pre-job review and orientation at a minimum:

- Management verifies any required contractor or subcontractor training or certifications.
- Management verifies safety data sheets (SDS) for any chemicals brought on site.
- Management reviews equipment brought on site to ensure it is in good condition and complies with all regulatory requirements.
- Management reviews all applicable HSE regulations as well as facility HSE policies and procedures with contractors or subcontractors.
- Management reviews general safety rules with contractors or subcontractors.
- Management reviews housekeeping, cleanup, and disposal requirements with contractors or subcontractors.
- Management reviews incident reporting with contractors or subcontractors.
- Management reviews provisions of noncompliance with contractors or subcontractors.

HS.33.3 Personal protective equipment is provided to workers at no cost wherever necessary to protect their health and safety and prevent exposure to risk and hazards (see HS.28).

HS.33.4 A monitoring process is in place for suppliers and subcontractors. The level of monitoring is determined by the risk involved with the task.

HS.33.5 There is a process in place for contractors' or subcontractors' noncompliance with any part of the policies and procedures.