



# EHS

CORPORATE  
DIRECTIVES



# PREFACE

*This booklet summarizes mandatory corporate environmental, health, industrial hygiene and occupational safety directives that shall be implemented by all Lincoln Electric Holdings facilities worldwide. The Directives provide strategic requirements for obtaining a uniform approach to EHS, in order to understand risks, mitigate and control hazards, and demonstrate compliance. These Directives apply to all Lincoln Electric facilities and all Lincoln Electric employees.*

*Facility management shall be accountable for implementing the necessary hazard control elements and other administrative details specific to their operations under these directives, as well as any additional site-specific programs, such that their personnel, equipment, facilities, as well as the environment and the communities where they operate are protected from injury, illness, damage or disruption. Adherence to these expectations shall be measured during formal EHS audits and other site visits.*

*The purpose of these Directives is to establish and maintain policies, procedures and practices which focus on preventing accidental injuries or illnesses to personnel or damage or loss of equipment and facilities. The Directives supplement existing laws and regulations in individual locations, as well as defining Corporate Policy. These Directives have the full support and cooperation of the management of Lincoln Electric.*

## *Corporate Environmental, Health, Safety & Quality Policy*

Lincoln Electric is committed to minimizing risks to human health and the environment in and around the workplace. We are dedicated to maintaining the health and safety of our employees, customers and neighbors, as well as preserving the integrity of our environment while ensuring the quality of our products and services. This commitment is led by management and is the individual and collective responsibility of all Lincoln Electric employees.

We will achieve these goals through our EHS-Q systems and we will strive for continual improvement by:

- » Adhering to our Code of Corporate Conduct and Ethics.
- » Complying with or exceeding all applicable regulatory requirements applicable for persons, environment, activities and products.
- » Setting objectives and monitoring progress to improve the health and safety of our employees, customers, suppliers and third parties wherever they work by preventing accidents and incidents and reducing adverse environmental impacts through the Lincoln Electric EHS-Q systems.
- » Ensuring that our operations, products, services and performance deliver a high level of quality and reliability to satisfy our customers and stakeholders.

- » Raising EHS Q awareness of all employees while stressing personal accountability and rewarding impactful behavior throughout the Lincoln Electric organization.
- » Supporting education and training to institutionalize our systems and standards throughout the company and ensure that the appropriate behaviors and competencies are in place to promote sustainability.
- » Conserving natural resources through pollution prevention, energy conservation and waste minimization.



Note: This policy is reviewed annually. Please visit our website or Global Linc to obtain the current version.

# TABLE OF CONTENTS

## ROLES & RESPONSIBILITIES

Corporate EHS .....	9
Facility EHS Coordinator / Manager .....	9
Facility / Operations Manager .....	9
Entity Manager .....	10
EHS Entity Manager .....	10

## EHS MANAGEMENT SYSTEMS / ADMINISTRATION

Legal Requirements & Evaluation of Compliance .....	11
EHS Aspects & Impacts .....	11
Goals – Objectives & Programs .....	11
Training .....	12
Communications & Reporting .....	12
Incident Management / Investigation / Reporting .....	13
Corrective Action & Preventative Action (CAPA) .....	14
Permits .....	14
Change Management .....	15
Contractor Management .....	15
Employee Involvement Programs .....	15
Other Requirements .....	17

## ENVIRONMENTAL

Air .....	16
Water .....	16
Waste / Recycling .....	17
Chemical Management, including Toxic Materials .....	18
Energy & Green House Gases (GHG) .....	21

## HEALTH / INDUSTRIAL HYGIENE

Occupational Medicine .....	22
Chemical Information and Workplace Hazard Communication .....	22
Hearing Conservation / Noise.....	23
Fugitive Noise .....	23
Respiratory Protection .....	24
Industrial Hygiene Exposure Assessment Program .....	24
Health Hazard Controls .....	25

## SAFETY

Personal Protective Equipment.....	27
Machinery & Work Equipment Safety .....	28
Energy Isolation (LOTOTO) .....	28
Confined Space.....	29
Hot Work.....	29
Cranes / Hoists and Other Lifting Equipment .....	29
Lift Trucks / Work Vehicles.....	30
Working @ Heights / Ladders.....	30
Combustible Dust .....	31
Compressed Gases.....	31
Electrical.....	31
Ergonomics .....	31

## EMERGENCY RESPONSE

Action Plans .....	32
First Aid / Medical Services.....	32
Fire Protection / Prevention .....	33
Site Security.....	33



# ROLES & RESPONSIBILITIES

**CORPORATE EHS** Has the ultimate authority over EHS matters for Lincoln Electric Holdings and its subsidiaries. The Director, EHS oversees the Corporate EHS Team. The director reports to the Legal Department.

*Responsibilities include:*

- » Regulatory interpretation
- » Development of corporate goals & objectives
- » Performing auditing and assessments activities
- » Establishing key performance indicators and gathering the supporting performance data
- » Communicating global metrics
- » Supporting behavior based safety programs
- » Supporting activities that reduce risk and are required to achieve compliance at local facilities
- » Implementing & supporting EHS management systems
- » Establishing evacuation and emergency response processes

## **FACILITY EHS COORDINATOR / MANAGERS**

One or more *qualified* persons shall be designated as being *primarily* responsible for EHS matters for each facility or group of facilities. These individuals shall be provided with adequate training, time and resources to fulfill their responsibilities. These persons have the ultimate authority and responsibility for interpreting and assuring compliance with applicable regulations and with Lincoln Electric's EHS Corporate Directives. They are also responsible for auditing for site compliance of all programs contained here and local requirements.

## **FACILITY / OPERATIONS MANAGERS**

The Facility Manager or Site Manager, Managing Director or Operations Manager of each facility shall support the EHS team and is responsible for overall compliance of the facility. The Facility/Site Manager is responsible for appointing the EHS coordinator/manager for the site. They also shall administer appropriate discipline for program non-compliance.

## **ENTITY MANAGER**

The Entity Manager (if applicable) shall appoint an EHS Entity Manager reporting directly to him/her.

## **EHS ENTITY MANAGER**

The EHS Entity Manager is responsible for supporting management and the implementation of EHS programs within the entity. They shall also ensure that all facility/site managers have annual EHS plans established for their site(s) that align with annual Corporate EHS Goals and Objectives and the 2025 Higher Standard Sustainability Vision.



# EHS MANAGEMENT SYSTEMS/ADMINISTRATION

## LEGAL REQUIREMENTS AND EVALUATION OF COMPLIANCE

*The facility EHS Coordinator/Manager is responsible for:*

- » Knowing and understanding applicable regulations that impact the operations at their facility.
- » Interpreting their local and regional regulations, EHS Corporate Directives, Corporate Standards and Guidance Documents for applicability to their operations.
- » Creating programs, including operational specifications, that document their facilities program requirements including necessary training, recordkeeping and reporting.

## EHS ASPECTS & IMPACTS

Each facility must know and understand the “cause and effect relationships” of each process at their facility and develop programs to minimize significant risk.

## OBJECTIVES & PROGRAMS

These programs shall become the primary EHS goals to be implemented at each facility annually. They should be created by evaluating:

- » Compliance with regulations
- » Significant risks identified when creating or reviewing the appropriate aspects and impacts
- » The annual EHS Corporate Goals and the Corporate Directives contained in this document.

The programs shall be developed in conjunction with EHS and Operations Management and Staff and communicated throughout the organization.



## TRAINING

Ensure that employees, contractors and visitors have the necessary knowledge to avoid hazards, minimize risks and comply with government regulations. Appropriate records must be kept to properly document training.

- » Each job function and process must be evaluated to identify the appropriate required training which will be included in the associated Job Description and Job Hazard Analysis or JHA. Training shall inform employees about the risks associated with their jobs. Regular reviews of these requirements shall occur to ensure that modifications to job function are reflected in the training requirements and JHA.
- » Contractors and visitors must receive appropriate hazard training and understand emergency procedures

## COMMUNICATIONS & REPORTING

To provide effective communications regarding risks and incidents to regulatory agencies, management and employees.

- » All hazardous conditions shall be reported to the appropriate supervisor.
- » All incidents shall be reported immediately to the appropriate supervisor, including accidents, near misses, chemical spills, property and fires/explosion. Reports of these must be maintained in QUEST
- » The following types of events shall be reported to Corporate EHS immediately by phone call:
  - Injuries or illnesses resulting in a death or that may be construed as life threatening
  - Serious injuries or illnesses, such as those involving a loss of limb or joint, serious burns or those that may lead to or have resulted in a permanent disability
  - Any facility incident resulting in business interruption
  - A significant industrial fire or explosion
  - A chemical spill that reaches off-site or into a community drainage system or requires notification to local regulatory agency
  - Visits (planned or unannounced) by government agencies, such as OSHA, EPA, Labour Ministry or Municipal Water Authorities, that may result in findings, violations or penalties. (Email is an acceptable reporting form)
  - Any near miss that the EHS Manager determines may have resulted in a fatality, multi-day lost work case, and/or hospitalization of one or more individuals.

With timely notification, Corporate EHS can assist with required investigations and communications, and work to identify appropriate assistance from other Lincoln Electric resources. The response to the emergency and return of an operation to normal conditions is critical and may have significant EHS implications.

### **Communication with Regulators**

*Purpose: To ensure that communications with regulators take place in a knowledgeable and controlled manner.*

- » Procedures should be developed when a regulatory person(s) visits the facility to ensure proper communication and documentation of the visit.
- » Written communications shall be properly stored for retrieval if necessary.

### **INCIDENT MANAGEMENT / INVESTIGATION / REPORTING**

*Purpose: To be used to document and investigate accidents or other similar incidents*

All facilities shall use EHS Information System (QUEST) to report all EHS Incidents, document investigation and any remedial actions.

- » All incidents resulting in personal injury, property damage or near-misses must be immediately reported to the responsible supervisor and recorded in QUEST.
- » Accident scenes must not be changed in any way other than to make them safe or prevent further injury and/or property damage until the incident has been properly investigated.
- » Injuries, no matter how minor, must be reported to their supervisor and be examined and treated.



## INCIDENT MANAGEMENT / INVESTIGATION / REPORTING (cont)

*Purpose: To be used to document and investigate accidents or other similar incidents*

- » Only trained employees should handle seriously injured employees in order to prevent further injury.
- » An ambulance or suitable vehicle must be used for transportation of seriously injured employees.
- » Upon notification of an accident or incident, the responsible supervisor and EHS Officer shall commence an investigation to determine the cause of the event.
- » On completion of medical treatment, patients, if not incapacitated, must report immediately to the supervisor or medical department, to provide details of their medical status and events leading to injury.
- » For any injury, an investigation must be completed to determine the cause of the accident.
- » Remedial actions shall be determined from the accident findings

## CORRECTIVE ACTIONS AND PREVENTATIVE ACTIONS (CAPA)

Investigations of incidents, audit findings and other opportunities to reduce risk may result in a CAPA. These actions shall use EHS Information System (QUEST) to report on the investigation and corrective actions necessary to resolve CAPAs.

## PERMITS

*Purpose: To insure that facility, equipment or processes have the required permits.*

- » The terms and conditions of these permits are summarized and communicated effectively to appropriate employees.
- » There shall be a process to ensure compliance with the terms and conditions of these permits are met.

## CHANGE MANAGEMENT

*Purpose: To ensure that issues which pose potential EHS risks to the business such as new or modified equipment, acquisitions or divestitures, facility improvements, facility additions, all chemicals, and products are reviewed to determine potential EHS impacts & requirements including permitting, the need for control equipment, risks to employees and so forth. An approval process shall be established to ensure that the identified changes are comprehensively reviewed and applicable certifications and permits are obtained.*

## CONTRACTOR MANAGEMENT

*Purpose: To reduce the risks that contractors present or are exposed to.*

- » The facility shall have a Contractor Management program that ensures all contractors understand the EHS risks of the facility. The program shall also make certain that contractors are properly trained to perform their work activities at the facility.

## EMPLOYEE INVOLVEMENT PROGRAMS (BBS, WELD, ETC)

All facilities shall have employee involvement programs in EHS. These programs should:

- » Review work place EHS issues and employee behavior
- » Encourage and reward EHS suggestions
- » Providing a way for all employees to communicate EHS concerns to management

## OTHER REQUIREMENTS

*Purpose: To create awareness around and compliance with international regulations that may impact the manufacturing, sale or customer service elements of our business.*

- » ISO 14001/ ISO 45001 /ISO 50001 and other EHS Management Systems
- » RoHS (Restrictions of Hazardous Substances)
- » WEEE (Waste Electrical and Electronic Equipment)
- » REACH (Registration, Evaluation, Authorization and Restriction of Chemicals)
- » Conflict Minerals
- » FIN 47
- » Globally Harmonized System (GHS) for the classification and labeling of chemicals

# ENVIRONMENTAL

## AIR

*Purpose: To recognize the potential impact of air emissions sources, permit requirements, control equipment, testing and record keeping.*

- » All air emission sources shall be evaluated to determine if the materials or chemicals used and discharged pose a risk to the environment or community.
- » This evaluation shall determine regulatory permitting requirements and the process necessary to obtain appropriate permits for the installation and operation prior to the equipment/process installation and operation.

Implement training, modifications to JHA's, record keeping requirements, reporting, emission analysis, testing requirements and other necessary program elements.

## WATER

*Purpose: To recognize the potential impact of water emissions sources, permit requirements, control equipment, testing and record keeping.*

- » Verify that supply water meets applicable standards
- » All water emission sources shall be evaluated to determine if the materials or chemicals used and discharged pose a risk to the environment or community.
- » This evaluation shall determine regulatory permitting requirements and the process controls necessary to obtain appropriate permits for the installation and operation prior to the equipment/process installation and operation.
- » All process waste water discharged from the plant shall be evaluated for the appropriate metals and organics, including at a minimum pH, Cu, Fe, Cd, Pb, Ni, Zn, sulfates, COD, Total Cyanide, Total Suspended Solids, Oil and Grease. Sampling must be representative and taken at least annually. Note: Any "non-compliant" results must be shared with Corporate EHS within 72 hours of discovery.

- » Establish a water conservation program at each site intended to:
  - A) Improve process efficiency
  - B) Minimize water usage
  - C) Encourage sustainable activities
  - D) Minimize discharge

Implement training, modifications to JHA's, record keeping requirements, reporting, emission analysis, testing requirements and other necessary program elements.

## WASTE / RECYCLING

### Waste Management

*Purpose: To ensure that EHS staff is aware of each facility's waste disposal practices.*

- » Each facility shall have a program that reduces waste as the first option. After reducing waste, the second option is that the facility shall re-use material. Recycling material is the third option. The last option available is disposal.
- » No waste materials may be disposed of or recycled unless the contractor and the facility performing the work have been approved by the facility's EHS staff first.
- » All waste materials from routine processes, excluding rubbish, shall be analyzed at least every other year using applicable TCLP (toxic chemical leachate procedure) analysis techniques; unless more frequently required by local regulations or when process changes occur.  
**Note:** A list of all toxic or hazardous wastes must be provided, kept up-to-date, and available on request.



**Waste Management Supplier Certification**

*Purpose: To ensure that each disposal facility is audited to ensure proper disposal practices.*

- » Each Lincoln Electric facility shall regularly evaluate, as part of its annual supplier certification process, suppliers that handle or dispose of waste materials including recyclers. This does not mean that each facility must be certified annually. This may be performed based on risk basis.
- » Each facility shall periodically evaluate all waste disposal firms and facilities used by the Company. At a minimum this must occur every three years, using a risk based approach, unless required more frequently by local regulations or when process changes occur. For example, it is more important to audit hazardous waste disposal sites as compared to cardboard recyclers, which shall also be visited at least once every three years.

**Waste Disposal on Company Property**

*Purpose: To guarantee that no inappropriate waste disposal activities occur on Lincoln Electric property.*

- » No materials may be disposed of on any Lincoln Electric property

**Waste Minimization**

*Purpose: To reduce waste generation by Lincoln Electric facilities.*

- » A written plan shall be implemented that minimizes the quantity of waste generated at each facility. The plan shall consider factors such as process changes, material substitutions and the possibility of recyclability and recovery of materials in the design and/or manufacture of products. The priority will be to eliminate hazardous wastes, reduce waste generation in general and recycle when possible.
- » An intensity-based metric must accurately measure the reduction in waste at each facility. One such example would be to monitor how much waste water treatment filter cake is produced per ton of MIG wire manufactured.

**CHEMICAL MANAGEMENT INCLUDING TOXIC MATERIALS**

*Purpose: To understand what chemicals and raw materials are used at the facility and establish a system to inventory at both a product and fundamental CAS number level, assess compatibility, risk, properly store and train those working with these chemicals.*

- » Each facility shall ensure that risk-appropriate storage, identification, training and communication are present.

- » Each facility shall maintain an up-to-date list of the chemicals used or stored there. The list must include the quantity, storage location, SDS information, use, and other pertinent information for each chemical.
- » The inventory shall include all chemicals that have a single day inventory of four metric tons or more on at least one day of the year. If no chemicals meet this requirement, then the inventory should include the top ten chemicals at your facility. Any chemical considered an “extremely hazardous substance” that poses an acute threat to human life, in any quantity shall also be inventoried.

### **Storage – Aboveground Storage Tanks (AST) and Underground Storage Tanks (UST)**

*Purpose: To eliminate the risk of utilizing and managing AST/USTs going forward.*

- » Facilities which store chemicals in ASTs must store those tanks in a location which does not pose risk to the facility or the container should an accidental release occur.
- » The AST should be inside a diked or bunded containment area which can hold at minimum 110% of the volume of the storage tank.
- » AST contents should be clearly identified on the side of the tank and containment area.
- » AST and containment should be designed in such a way to consider the impact of Storm water and other external issues.
- » Appropriate emergency response equipment shall be located nearby which will assist in the control of a spill, fire, explosion or other unplanned release.
- » Facilities must not store waste materials in UST, nor should new USTs be installed for any purpose. USTs do not include pits or chambers with tanks installed in them.
- » All USTs must be integrity-tested on an annual basis



### **Asbestos & PCBs**

- » If asbestos containing material (ACM) or Poly chlorinated biphenyls (PCBs) are present at the facility, an inventory shall be kept up-to-date. This inventory should include a map and amounts of materials in each location.
- » ACM & PCBs containing equipment shall be properly labeled
- » These materials shall be removed in accordance with applicable regulations where they are damaged, have the potential for release to the environment, or otherwise may pose a risk to personnel.

### **Toxics**

- » The least toxic materials shall be selected for processes and applications, wherever feasible, for use in the facility. Our goal is to eliminate highly toxic materials.
- » Proper communication and training is required to employees who work with and around highly toxic chemicals. Highly toxic chemicals are those where a single acute exposure could result in serious injury/illness or where chronic exposures could result in serious or life threatening conditions.

### **Prohibited (forbidden) Chemicals**

- » Asbestos
- » PCBs (poly chlorinated biphenyls)
- » Chlorinated Solvents
- » Mercury
- » Lead based paints
- » Those banned by applicable regulations

Facilities which contain any of the above materials shall have an inventory that includes where the material is present. These areas shall be inspected annually to ensure the condition does not pose a hazard. The materials must be clearly marked.

Corporate EHS shall maintain a list for all processes and products.



## ENERGY & GREEN HOUSE GASES (GHG)

*Purpose: To understand and to optimize the energy used and the quantity of Greenhouse Gas (GHG) generated by each facility.*

- » Initially, each facility shall conduct a study to understand how energy is used at their facility. The goal is to understand how much energy is used to heat or cool the facility, operate each major piece of manufacturing equipment and provide services, such as compressed air to the facility.
- » Each facility shall summarize its energy footprint annually by updating the energy study. This exercise shall include the energy used to manufacture products, heat or cool the facility and maintain the operations and all activities categorized as Scope I and Scope II emissions. Whenever possible, ozone depleting substances shall not be used at the facility.
- » Each facility shall attempt to optimize energy usage by identifying and implementing energy efficiency measures as justified by normal hurdle rate calculations.
- » Each facility shall maintain an up-to-date inventory of its greenhouse gas emissions and participate in Company programs to identify and reduce them.
- » Standard certifiable calculation techniques shall be used. It is expected that the facility understand where its energy mix comes from. More specifically, what percentage of the electricity used is generated by hydro-electric plants, solar energy, nuclear power plants and so forth.



# HEALTH / INDUSTRIAL HYGIENE

## **OCCUPATIONAL MEDICINE**

*Purpose: To proactively evaluate, monitor and protect employee health.*

- » Competent, qualified occupational medical services shall be present or contracted such that it can be determined that employees are able to meet the physiological demands of the work assigned, and that health conditions or preconditions are identified that might put employees or others at risk.
- » Medical services should be utilized to conduct appropriate surveillance activities whenever applicable, such as: audiometric evaluations, respiratory fitness evaluations, respiratory fit-testing and chemical or compound-specific health assessments.

## **CHEMICAL INFORMATION AND WORKPLACE HAZARD COMMUNICATION**

*Purpose: To ensure that we accurately identify what chemical compounds we are using in our facilities, and in or on our products. To ensure that we are able to effectively communicate chemical hazards to the workforce and to our customers. To take the necessary steps to adequately warn as well as protect our employees, the environment, and communities wherein we operate, from the potential hazards of these materials.*

- » Establish an accurate chemical inventory of the hazardous materials or products purchased as raw materials or used for manufacturing – including those used for maintenance, housekeeping and janitorial activities.
- » Have an electronic system for cataloging and maintaining up-to-date Safety Data Sheets (SDS) for all materials in the inventory which complies with applicable regulatory requirements. The key metadata such as a material's fundamental chemical composition, GHS classification, as indicated by these SDS, must be accessible.
- » Have a process that ensures product containers in the workplace contain the legally-required warning information [such as The Globally Harmonized System for the Classification and Labeling of Chemicals (GHS)]. Must also have a process to ensure that manufactured products, and other shipped manufacturing materials, are labeled according to applicable legal and corporate mandated warning requirements.

## HEARING CONSERVATION / NOISE

*Purpose: To protect employee hearing and reduce noise generated in facilities.*

- » A hearing conservation program, with scheduled hearing testing and employee training, must be put into effect where employee exposure to noise exceeds 85 dB (A) or local regulations, if lower. Additionally, adequate hearing protection must be provided to prevent overexposures until engineering controls to reduce noise levels can be deployed.
- » Engineering controls must be put in place where feasible to reduce industrial noise to levels below 85 dB (A).
- » A process must exist to require that new processes, vehicles and equipment do not produce noise levels above 85 dB (A).
- » In countries that require exterior noise monitoring and control, compliance with local requirements is expected.

## FUGITIVE NOISE

*Purpose: To ensure that noise from our operations do not adversely affect the communities in which we are located.*

- » Fugitive noise or boundary noise shall be controlled to comply with local limits and avoid impact to site surroundings.
- » Periodically measure and document compliance with local regulations.
- » Engineering control for noise reduction includes, but is not limited to: soundproof rooms, sound absorptive walls, sound absorbing machinery, regular effective maintenance.

## RESPIRATORY PROTECTION

*Purpose: To provide a plan for the use of required respirators.*

- » Each facility providing or requiring respirators or a dust mask shall have a respiratory protection program consistent with corporate and country-specific requirements. The program shall include training respirator users on the proper use, selection, care and limitations of the devices.
- » Applicable occupational medical respiratory fitness evaluations and respirator fit testing are required under a comprehensive respiratory protection program - whenever respiratory protection is required.



## INDUSTRIAL HYGIENE EXPOSURE ASSESSMENT PROGRAM

*Purpose: To provide a competent risk assessment and measurement process that ensures the physical and health stressors that arise from occupational workplace activities do not impact the health or well-being of employees.*

- » Qualitative assessments or risk assessments shall be conducted to ensure that all the potential stressors exposures are identified and evaluated.
- » Quantitative assessments or exposure measurements shall be conducted as necessary to determine where exposure to health stressors may exceed applicable occupational exposure levels or limits. This process must include statistical validation.
- » Where exposure levels are deemed unacceptable, a hierarchy of controls must be utilized that ensures that process changes or engineering control measures are deployed before personal protective equipment (PPE) is utilized as a sole remedy to protect employees.

## HEALTH HAZARD CONTROLS

*Purpose: To ensure that the physical and health stressors that arise from occupational workplace activities are prevented from being released to the work environment to the extent feasible, and adequately controlled such that employee exposures do not exceed applicable limits - or otherwise impact the health or well-being of employees.*

- » Airborne contaminants shall be captured or otherwise prevented from being released to the workplace environment to the greatest extent feasible.
- » Adequate ventilation systems and other control techniques such as water capture, isolation and enclosure shall be utilized to control the release of potential airborne contaminants to the workplace environment.
- » Attenuation, isolation, interlocks and barriers shall be used to protect employees from excessive exposure to noise, ionizing and non-ionizing radiation, and other physical or biological hazards.
- » Biological hazards such as microbial pathogens and mold shall be controlled through use of approved chemical or physical treatment methods that abate these hazards or maintain levels indicated to be safe for adequate control of potential exposures.



# SAFETY

## PERSONAL PROTECTIVE EQUIPMENT (PPE)

*Purpose: To provide employees or visitors Personal Protective Equipment while in the workplace.*

- » Workplace job and task assignments shall be assessed to determine where the work imposes possible risks that must be effectively addressed through the selection and use of PPE.
- » When hazards cannot be eliminated by substitution, engineering or administrative controls, appropriate Personal Protective Equipment shall be provided to employees or visitors.
- » Employees and visitors must be trained on the use and maintenance of the PPE.
- » Proper enforcement shall be included and the program must be periodically evaluated.
  - Eye protection that meets or exceeds national standards and at a minimum the ANSI Z49.1 or (EU) 2016/425 standard is required on:
    - Lincoln Electric shop floors, laboratory areas, warehouses, service centers, and training and demonstration centers (both permanent and temporary).
  - Protective footwear that meets local in-country standards or exceeds ASTM F2413 requirements shall be worn by all employees on the manufacturing, warehouse, laboratory, training, service center or other appropriate floors, unless otherwise designated. These areas are only where the general pedestrian is away from potential harm. All footwear must be in serviceable condition.
  - Hand protection, such as leather gloves, gauntlets, or other suitable materials, shall be worn to protect hands from excessive heat or extremely abrasive materials. Chemical-resistant gloves must be used when handling petroleum products, solvents, acids or liquid caustics. All gloves must be in serviceable condition.
  - Other PPE may need to be provided to protect all other parts of a person's body and functions (hearing, breathing, head, etc.)



---

## MACHINERY & WORK EQUIPMENT SAFETY

*Purpose: To prevent employees from being injured due to contacting the point of operation of machinery.*

- » Each facility must have a process for ensuring that employees and visitors are protected against hazardous areas. Hazards may include moving parts, hot surfaces and electrically live parts.
- » Process must include methods for identifying the need for machine guarding, proper guarding, maintenance of guarding, and guarding enforcement.



## ENERGY ISOLATION – LOCK OUT TAG OUT TRY OUT (LOTOTO)

*Purpose: To protect employees and contractors working on equipment from unexpected energy, such as electrical, mechanical, thermal, chemical, or pneumatic.*

- » Each facility must have an energy LOTOTO program that includes procedures, training & proper isolating devices & locks.

## CONFINED SPACE

*Purpose: To ensure that employees and contractors working in confined areas are not harmed by atmospheric or other hazards.*

- » Each facility must have a confined space program which includes identification & proper signage.
- » Permitted spaces must have space-specific entry and rescue procedures to ensure the safety of entrants.
- » If Confined Spaces are to be entered, employees must be trained. Entry in Confined Spaces must only be made when all hazards have been eliminated & a trained rescue team is available.

## HOT WORK

*Purpose: To establish a program to insure that welding, cutting and other "hot" processes do not accidentally initiate a fire or explosion.*

- » Each facility shall develop a Hot Work Program that ensures that all welding, cutting, torching or other type of hot work within the facility is completed safely and within a set of documented permit conditions. The permitted conditions shall be designed such that they prevent or eliminate small fires during hot work and for up to 2 hours following the cessation of work. Permanent or designated hot work areas may be established provided safe conditions are maintained and verified through documented periodic inspections.

## CRANES / HOISTS AND OTHER LIFTING EQUIPMENT

*Purpose: To prevent injury or property damage from the operation of cranes / hoist and other lifting equipment.*

- » Only authorized, trained and licensed employees can use the facility cranes / hoist and other lifting equipment.
- » Each facility shall have a program that includes: training (licenses), inspections & maintenance of cranes / hoist and other lifting equipment.

## LIFT TRUCKS / WORK VEHICLES

*Purpose: To prevent injury or property damage from the operation of lift trucks and work vehicles.*

- » Only authorized, trained and licensed employees can use the facility lift trucks and work vehicles
- » Each facility shall have a program that includes: training (licenses), inspections & maintenance of vehicle.
- » Employee awareness of hazards in the factory & warehouse shall be provide to all employees who may encounter vehicles while doing their job.



## WORKING @ HEIGHTS / LADDERS

*Purpose: To prevent injuries from falls while working from elevated heights.*

- » Each facility must have a Fall Protection program for construction employees or contractors working at heights greater than 6 ft. (1.8 m) above the ground, as well as production employees working at heights greater than 4 ft. (1.2 m) above the ground.
- » Program applies where railings & toe guards are not present on walking surfaces above the ground level.

## COMBUSTIBLE DUST

*Purpose: To establish a program to insure that dusts and other fine particles which have the potential to initiate an explosion or deflagration event are handled with the appropriate caution and process safety controls preventing any such occurrence.*

- » Facilities that mill, mix, transfer or process combustible or flammable solids shall complete a combustible dusts risk assessment. Such a process must identify materials that may become airborne in sufficient concentrations to pose a risk of airborne combustion (deflagration). Risk assessment processes must include testing of materials when necessary to properly quantify risks and to define appropriate engineering control countermeasures.
- » All facilities are expected to eliminate or adequately control deflagration hazards in order to protect personnel and equipment

## COMPRESSED GASES

*Purpose: To prevent injuries from the handling and use of compressed gases.*

- » Each facility shall have a training program for those using and handling compressed gases. This should include: proper transportation, storage and use of bottles.

## ELECTRICAL

*Purpose: To prevent employees from contacting live electrical parts or being injured due to electrical arc flashes or blasts.*

- » Each facility must have an electrical safety program, including hazard assessment, training, appropriate PPE & proper tools.
- » Only properly trained employees / contractors shall work on energized electrical wiring, devices or equipment per the program and training implemented at their facility.
- » Electrical cabinets, panels & disconnects shall be properly labeled with appropriate voltage, arc flash rating and what equipment it is connected to.
- » All appropriate electrical codes shall be adhered to.

## ERGONOMICS

*Purpose: To prevent musculoskeletal injuries due to workplace design and arrangement.*

- » Each facility must use recognized engineering and science to design and arrange the workplace to reduce both acute injuries and chronic muscular skeletal diseases.

# EMERGENCY RESPONSE

## ACTION PLANS

*Purpose: To establish a team and appropriate protocols in response to plant emergencies.*

- » Each facility shall maintain a current written emergency response procedure. It must include a description of planned responses and notifications for fires, explosions, releases of toxic materials, weather emergencies and similar events.
- » Procedure shall identify plans for convening a response team; establishing the team's training requirements; communicating with employees, the media, governmental agencies; use of experts or other pertinent matters; and plans for practicing emergency response procedures at least once per year.



## FIRST AID / MEDICAL SERVICES

*Purpose: To establish a team and appropriate protocols in response to plant medical emergencies.*

- » Each facility shall maintain a team of people that can assist employees and visitors in the case of a medical emergency, including workplace injury.
- » The team shall be properly trained and have the devices, tools and equipment necessary to effectively address the potential types of emergencies that can be anticipated.
- » All work shifts should have trained people.

## FIRE PROTECTION / PREVENTION

*Purpose: To establish a fire prevention program and training.*

- » Each facility shall have a comprehensive program for preventing fires. Program shall include a site assessment, routine inspections and proper fire-fighting equipment.
- » Employees shall be trained on how to recognize potential fire hazards and fight fires within their abilities and equipment. They shall also be trained on how to quickly report fires and protect themselves and others by safely evacuating the area.



## SITE SECURITY

*Purpose: To establish a program to insure that each facility provides a safe workplace for our employees, minimizes the risk of theft, vandalism or terrorism of our property and our employee's property.*

- » Common practices include the construction of perimeter walls or gates, security stations both for employees and shipping and receiving, some sort of employee identification and recognition system, night lighting, an intruder alert system and fire alarm system and monitoring practices.
- » A work alone policy is also required to protect employees from taking excessive risk if they must work alone.





