CENTURION POWER

SAFETY MANUAL

AUGUST 2025

CENTURION POWER

AN ATWELL COMPANY

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Centurion Power

HSE MANUAL

HSE A002

Behavior Based Safety Policy

Revision0 June 1 2024

I. SCOPE

1. Centurion Power has adopted this policy for Behavior Based Safety Observation for customers and work that require using behaviors-based observations as part of their Safety Management system. The program utilizes documented observation methods, coaching and mentoring techniques to help bring about desired safe behaviors are practiced.
2. Behavior based safety is one tool used by Centurion Power in order to bring employees into compliance with Health and safety standards. The goal of a Behavior-Based Safety process is to create a safety culture in the workplace. The process focuses on observing and correcting behaviors, not attitudes that are critical to safety. Employee behavior is measurable; attitudes are not. But Behavior-Based Safety can affect attitudes. Behavior-Based Safety is successful because it fully engages the entire workforce.
3. As injuries decrease, employee morale increases, allowing more cooperation and efficiency throughout the company. Instead of focusing on accidents, failure, punishment, and managerial goals, employees focus on safe behaviors and work toward their own safety goals.

II. OBSERVATION

1. A critical element in Behavior Centurion Power-based Safety (BBS) program depends on site observation. Site observation includes direct and open communication with the employees involved. The observer will:
    a. Meet with the worker at the site and introduce yourself and gain an overview of the job being done.
    b. Observe and monitor the worker, noting their safe behaviors.
    c. Monitor the at-risk behaviors the worker is putting themselves in.
2. Observation Process Training will be established and implemented to the proper personnel. These individuals will be experienced employees of. Training Centurion Power will consist of either classroom or on the job training. Elements of the Training Program include:
    a. Who is to be trained
    b. Ensuring employees know the basic elements of the behavior-based program
    c. Ensuring that all employees involved in the process are trained in the classroom or on the job
3. The types of training that will be provided are:
    a. Management training - to ensure the common goals and process of the program are being met
    b. New employee training - effectively communicating the program to all employees
    c. Refresher training - to be done as needed or when changes are made to the policy or procedure of the program. This training will include:
        - Program objectives and incident report reviews
        - How to conduct the site observations
        - The observer‘s knowledge of the job procedures they observe
        - Knowledge of the correct work and safety procedures involved

- How to complete the observation form
- How to determine and analyze at-risk behaviors
- Feedback training and role play (mentoring and coaching) - Employees should be aware they may be observed at any time

4. This training process will be documented in order to keep on record those qualified to observe on site behaviors and effectively implement the program's elements.

III. FEEDBACK

1. Communication is a crucial element in a successful Behavior Based Safety Program. To effectively accomplish this, feedback is of key importance.
2. The observer will start by commending the safe behavior the worker was doing during their work. The observer then will to explain, the at-risk behaviors the worker was engaged in. The observer solicits feedback from the worker as to why they were putting themselves at risk. Example, if the worker is welding a piece of metal and the sparks are flying in the workers direction. The observer would then ask the worker why he was not wearing protective clothing, like a flame-retardant apron. At this time, the observer and worker will discuss the at-risk behaviors until the worker and observer agree on a safer way of working.
3. The Observer's job is to highlight this at risk behavior, then explain the associated negative consequences with this behavior. The discussion of at risk behaviors and agreement on actions to prevent reoccurrence is the individual feedback which helps workers change behaviors. Key elements for the observer to remember during the feedback process are:
    a. Reviewing the observation with the employee
    b. Start with positive comments on behavior and procedure
    c. Reinforce these behaviors
    d. Describe and discuss the unsafe portions observed
    e. Determine the reasons for the unsafe actions with open-ended questions to the worker
    f. Re-emphasize that there are no negative consequences at this stage, so long as the observer and worker agree on the change of behavior
4. At the end of the observation the Observer will complete and turn in an Observation Card with:
    a. Safe and at-risk behaviors they noticed and discussed with worker(s)
    b. Record the date, time and location of the observations
    c. Note the worker(s) comments and reasons for the at-risk behavior
    d. Record recommended safe behavior
    e. *Note:* Worker's name or identification numbers are not included on Observation Card
5. Consequences that have the greatest impact in determining an individual's behavior occur soon after the behavior, the individual is certain that they will occur and the consequences are important to the individual. Consequences that delayed or distant, that the individual is uncertain whether or not they will occur and are unimportant will have limited impact.

IV. DATA COLLECTION

1. Observation Cards will be used by Centurion Power to summarize the observation process. Documenting this interaction is important analysis by the Safety Department in charge of the program. All observation cards will be sent to Safety at for review and input into the data collection sheet. Reports will be generated that trend at-risk behaviors and locations they are taking place. The Safety Department will analyze the date and make recommendations to reduce at risk behaviors and suggest practical solutions. Information will be used by management to develop action plans to ultimately reduce the risk of injuries to workers.

V. ACTION PLAN

1. In order to address unsafe behaviors, will construct its Action Plan Centurion Power based on Observation Reports, trend analysis, and recommendations from the Observers and employees. Management will be assigned responsibility for the actions included in the plan. Action planning will include:
    a. Holding regularly scheduled meetings to discuss and analyze behavior-based report findings
    b. Evaluating unsafe behaviors
    c. Designating responsible parties and time frames to complete the Action Plan
    d. Ensuring support of management
2. The Safety Department will:
    a. Produce a set of recommendations to correct workers' behavior
    b. Recommendations may be as simple as providing Personal Protective Equipment (PPE) to workers in certain location, or increase work force in another location
    c. Some of the recommendations require site modification or costly machinery. Such recommendations are forwarded to senior leadership for approval.
3. The Safety Department responsibility is to ensure that:
    a. The recommendations will change the at-risk behaviors at the targeted location
    b. The recommendations will eliminate hazards and risks caused by hardware or wrong design

VI. FOLLOW UP

1. Any Action Plans set out by Centurion Power at the direction of The Safety Director will be completed in a time frame agreed upon by the Management. Regularly scheduled meetings will be held to:
    a. Review status and action taken for each action item
    b. Document Action Plan progress

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6/1/2024	6/1/2024	0	Created document	Tony Asciutto

Centurion Power Safety Observation

Date:		Location:	
Observer:			
Client:			

Behavior Based Observation

PPE	Safe	At Risk	N/A	Body Position	Safe	At Risk	N/A
Body				Line of Fire			
Eye & Face				Walking			
Breathing				Climbing			
Respirator				Over Extension			
Hand				Eye on Task			
Foot				Lifting			
Hearing				Pinch Points			
Head				Pulling/Pushing			
Work Environment				**Tools**			
Terrain				Tool Use			
Housekeeping				Tool selection			
Traffic				Tool condition			
Aware of Surroundings							
Procedure Related				**Ergonomics**			
Respiratory Protection				Static Position			
PPE				Repetitive Motion			
DOT OQ				Extreme Temperature			
				Awkward Position			
Tools				**Equipment & Vehicles**			
Tool Use				Equipment Setup			
Tool Selection				Vehicle Use			
Tool Condition							

Task Observed	Observer Checklist	Yes	No
Describe the task being observed:	Did observer communicate intent?		
	Did observer understand task?		
	Did observer have a clear view of task?		
	Did observer record safe/ at risk behaviors?		
	Are comments completed and legible?		
	Did observer give positive feedback immediately?		
	Did observer review at risk concerns?		

Comments:

Centurion Power

HSE MANUAL

HSE 3

Hazard Communication Policy

Revision 0 – 6/1/2024

II. SCOPE

A. Centurion Power is committed to providing a safe and healthy work environment for our employees. The Centurion Power Hazard Communication Program (Hazcom) has been developed to improve communication and training associated with the use, handling, and storage of hazardous chemicals. The program is designed to increase employee awareness of the hazardous chemicals used in the workplace by providing information about the hazardous chemicals, identifying the associated hazards and harmful effects, and how to protect themselves from the risks of those hazards.

B. This document uses the Globally Harmonized System (GHS) for classification and labeling of chemicals which was incorporated into the 2013 OSHA and Cal/OSHA Hazard Communication Standard , CFR 1910.1200 and CCR Title 8, §5194). Centurion Power will incorporate all the changes into its Hazcom Program.

C. This document serves as the Centurion Power general Hazcom Program. In addition, departments are required to complete location-specific information in Appendix A- Hazard Communication Program Summary. Employees must adhere to the general Hazcom Program and their department-specific requirements.

D. A copy of this program will be made available to all employees and their designated representatives.

III. DEFINITIONS

A. Classification: To identify the relevant data regarding the hazards of a chemical; review those data to ascertain hazards associated with the chemical; and decide whether the chemical will be classified as hazardous, and the degree of hazard where appropriate, by comparing the data with the criteria for health and physical hazards. Typical classifications might be flammable, corrosive, reactive and toxic.

B. Hazardous Chemical: Any chemical which is classified as a physical hazard or a health hazard, a simple asphyxiate, combustible dust, pyrophoric gas, a hazard not otherwise classified, or is included in the Centurion Power List of Hazardous Substance.

C. Health Hazard: A chemical for which there is statistically significant evidence based on at least one study conducted in accordance with the established scientific principles that acute or chronic health effects may occur in exposed employees. Health Hazard Criteria can be found in 29 CFR §1910.1200- Appendix A (8 CCR §5194 Appendix A references this federal regulation). Hazards are listed as “H” codes on GHS compliant labels and safety data sheets (SDSs).

D. Immediate Use: The hazardous substance will be under the control of and used only by the person who transfers it from a labeled container and only within the work shift in which it is transferred.

E. Label: An appropriate group of written, printed, graphic information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the immediate container of a hazardous chemical, or to the outside packaging.

F. Physical hazard: A chemical that is classified as posing one of the following hazardous effects: explosive; flammable (gases, aerosols, liquids, or solids); oxidizer (liquid, solid or gas); self-reactive; pyrophoric (liquid or solid); self-heating; organic peroxide; corrosive to metal; gas under pressure; combustible liquid; water reactive; or in contact with water emits flammable gas. Physical Criteria can be found in 29 CFR §1910.1200 Appendix B (8 CCR §5194- Appendix B references this federal regulation).

G. Pictogram: A composition that may include a symbol plus other graphic elements, such as a border, background pattern or color that is intended to convey specific information about the hazards of a chemical.

H. Precautionary Statement: A phrase that describes recommended measures that should be taken to minimize or prevent adverse effects resulting from exposure to hazardous chemicals, or improper storage or handling. Statements are listed as "P" codes on GHS-compliant labels and SDSs.

I. Safety Data Sheet (SDS): Written or printed material concerning a hazardous chemical that is prepared in accordance with 8 CCR §5194(g). (See Appendix B for details).

J. Signal Word: A word used to indicate the relative level of severity of hazard and alert the reader to a potential hazard on the label. The signal words used are "danger" and "warning." "Danger" is used for the more severe hazards, while "warning" is used for the less severe.

K. Simple Asphyxiate: A substance or mixture that displaces oxygen in the ambient atmosphere, and can thus cause oxygen deprivation in those individuals who are exposed, leading to unconsciousness and death.

L. Trade Secret: Any confidential formula, pattern, process, device, information, or compilation of information which gives its user an opportunity to obtain a business advantage over competitors who do not know or use it. A trade secret shall not include chemical identify information which is readily discoverable through qualitative analysis.

M. Use: To package, handle, react, or transfer.

N. Workplace Label: "Non-original manufacturer label" - Label placed on a secondary (workplace) container. When hazardous material is removed/transferred from the original manufacturer labeled container to another container (secondary (workplace) container), the secondary (workplace) container must have a workplace label with the exception of portable containers that will contain chemicals for immediate use.

IV. POLICY APPLICATION

A. This document fulfills the requirements of the OSHA CFR 1910.1200 and the Cal/OSHA Hazard Communication Standard (8 CCR §5194). The program describes methods for meeting the requirements of a written Hazcom program, including:

1. Developing and maintaining a list of hazardous chemicals
2. Availability and access to Safety Data Sheets (SDSs)
3. Establishing procedures for container labeling and other forms of warning
4. Providing information and training
5. Addressing multi-employer workplace issues

B. Employees, Operations, and Substances Subject to the Hazcom Requirements:

1. The Hazcom Program applies to Centurion Power employees who work in:
2. Non-laboratory "industrial" work areas or operations where hazardous chemicals are used, handled or stored (examples: maintenance shops, custodial operations.

C. Operations where chemicals are only handled in sealed containers and are not opened under normal conditions. These operations are partially exempt from the regulatory requirements. However, employees of such operations must:

1. Ensure labels are not removed or defaced

2. Maintain SDSs and ensure SDSs are readily accessible during the work shift
3. Be provided information and training to the extent necessary to protect employees in the event of a spill or leak of a hazardous chemical from a sealed container

D. Such operations could include warehouses, store rooms, and shipping and receiving.

E. Exempted Substances

1. Hazardous waste
2. Tobacco or tobacco products
3. Wood or wood products
4. Articles
5. Food, drugs or cosmetics intended for personal use
6. Consumer products used in the workplace when used as a normal consumer would (example: white out, glass cleaner, spray paint for short, one-time applications, etc.). Employee exposure to the product cannot be significantly greater than consumer exposure.

V. HAZARDOUS CHEMICAL IDENTIFICATION AND CLASSIFICATION

A. Hazardous chemicals include, but are not limited to, the following:

1. "List of Highly Hazardous Chemicals, Toxics and Reactives" CFR 1910.119 App A
2. "The Hazardous Substance List," commonly known as the Directors List of Hazardous Substances, 8 CCR §339
3. "Toxic and Hazardous Substances, Air Contaminants," 8 CCR §5155
4. "Threshold Limit Values for Chemical Substances in the Work Environment," American Conference of Governmental Industrial Hygienists, updated annually
5. "12th Report on Carcinogens," National Toxicology Program, 2011
6. "Monographs," International Agency for Research on Cancer, World Health Organization
7. SDSs for reproductive toxins and cancer causing substances
8. Any other substance that may present a physical or health hazard as determined by scientific evidence

B. Hazardous chemicals can be identified by the hazard classifications noted on manufacturer labels and SDSs. Common hazard classifications include flammable, corrosive, toxic and carcinogen.

VI. RIGHTS AND RESPONSIBILITIES

A. Locations Lead shall assure that: Hazcom is implemented as a part of the Locations comprehensive health and safety program, in accordance with Centurion Power Policy and Procedure Manual

1. Location chemical inventories are entered and maintained in the Centurion Power Chemical Inventory System (CIS);
2. Location - Specific Hazcom Program Summary is prepared, maintained and communicated to employees; and
3. General Hazcom Program content is communicated to all employees.

B. Supervisors are responsible for implementing Hazcom at the operational level and ensuring the safe use of hazardous chemicals for all areas under their supervision. Responsibilities include:

1. Completing a Job Safety Analysis per the Centurion Power hazard Recognition program
2. Completing a hazard assessment/ personal protective equipment certification, if needed
3. Providing training and information to anyone who may be affected by work with hazardous chemicals, including ready access to SDSs and emergency procedures for hazardous chemicals used in the work area. This includes personnel from other units or contractors who may be affected by department operations
4. Identifying the hazardous chemicals present in the work area
5. Maintaining an inventory list of hazardous chemicals present in the work area
6. Confirming that:
    a) All hazardous chemicals, at or above reporting thresholds, are included in CIS
    b) All hazardous chemicals are labeled, at minimum, with the chemical name and the hazard
    c) Location -Specific Hazcom Program Summary (Appendix A) is followed and maintained in any assigned space where hazardous chemicals are used, handled or stored

C. Employee rights:

1. To receive information regarding hazardous chemicals to which the employee may be exposed
2. For the employee's physician or bargaining unit representative to receive information regarding hazardous chemicals to which the employee may be exposed
3. Access to employee's medical and exposure monitoring records
4. Right to exercise employee's rights to know without fear of discharge or other discrimination

D. Employee responsibilities include:

1. Reviewing, understanding, and following the requirements of the Centurion Power General Hazcom Program and the Department-Specific Hazcom Program Summary (Appendix A);
2. Completing required initial online general Hazcom training and participating in department-specific training, including the review of labels and SDSs prior to working with hazardous chemicals; knowing the hazards and precautionary procedures for hazardous chemicals used in the work area
3. Following safe work practices, standard operating procedures (SOPs) and wearing proper personal protective equipment (PPE) when working with hazardous chemicals
4. Immediately reporting accidents, incidents (including near misses), and unsafe conditions to your supervisor

E. Health and Safety (H&S) responsibilities include:

1. Developing, implementing and evaluating Centurion Power general Hazcom Program
2. Providing assistance with determining the hazardous properties of chemicals for which SDSs may not be available

3. Managing CIS and reporting the chemical inventory to County and State agencies as required
4. Providing assistance with hazard assessment and PPE selection
5. Administering the Hazcom Program for Centurion Power Locations, associated field locations and any remote facilities

VII. CHEMICAL INVENTORY

A. All Locations that use, handle or store hazardous chemicals must maintain an inventory of the hazardous chemicals present in their work areas. Inventories must be entered in Centurion Power CIS, the online inventory system managed by H&S.

B. Consumer products must be included in the chemical inventory if the employee exposure to the product is significantly greater than the consumer exposure occurring during the principal consumer use of the product.

C. Chemical Inventory System (CIS) the following CIS links are available:

1. X: Drive Health and Safety SDS inventory.

VIII. SAFETY DATA SHEETS (SDS)

A. Each location must maintain copies of any SDS received with incoming shipments of hazardous chemicals, obtain SDS of hazardous chemicals if received without an SDS, and shall ensure that SDSs are readily accessible during each work hours. SDSs may be maintained in electronic form so long as there are no barriers to employee access.

B. The Health and Safety department will review and ensure the most recent SDS is available for employees review.

C. Health and Safety will review of all SDS for chemicals used in the workplace. All SDS's will be reviewed for potential carcinogenic compounds. If the chemical is known to contain a compound that could cause cancer employees will be informed and proper protective measures taken to protect them.

D. Globally Harmonized System Format By June 2015, all SDSs must be GHS-compliant. SDSs will have a consistent 16-section format with the following sections (see Appendix B for details):

1. Section 1: Identification
2. Section 2: Hazard(s) Identification
3. Section 3: Composition/Information on Ingredients
4. Section4: First Aid Measures
5. Section 5: Fire-Fighting Measures
6. Section 6: Accidental Release Measures
7. Section 7: Handling and Storage
8. Section 8: Exposure Control/Personal Protection
9. Section 9: Physical and Chemical Properties
10. Section 10: Stability and Reactivity
11. Section 11: Toxicological Information
12. Section 12: Ecological Information (non-mandatory)

13. Section 13: Disposal Considerations (non-mandatory)
14. Section 14: Transportation Information (non-mandatory)
15. Section 15: Regulatory Information (non-mandatory) S
16. Section 16: Other Information

E. Trade Secrets: Manufacturers and importers may withhold the specific chemical identity of a hazardous chemical with certain "trade secret" provisions. Contact H&S for assistance with addressing "trade secret" information.

F. Obtaining SDSs can be obtained by:

1. Requesting copies from your supervisor
2. Contacting the vendor directly
3. Requesting H&S assistance

IX. LABELS AND OTHER FORMS OF WARNING

A. Every container of a hazardous chemical, except containers that will contain chemicals for immediate use, must be labeled, tagged, or marked to identify the substance and appropriate hazard warnings.

B. The Hazcom program will be periodically audited by the H&S department to check for compliance with all aspects of the Hazcom program including SDS, chemical inventory, training and labels.

C. Manufacturer original label shall provide:

1. Identity of the hazardous substance
2. Signal word
3. Hazard statement(s)
4. Pictograms (see Appendix C)
5. Precautionary statement(s)
6. Name and address of the manufacturer, importer or responsible party

Detailed information on manufacturer labels and label requirements can be found online: http://www.osha.gov/dsg/hazcom/appendix_c.pdf. Labels shall be:

1. Legible
2. In English
3. Prominently displayed on the container

The original label shall not be removed or defaced unless the container is immediately marked with the required information.

D. Workplace Labels Minimum requirements

1. Every container of a hazardous chemical must be labeled, tagged, or marked, in English, to identify the chemical and to provide appropriate hazard warnings
2. Portable secondary (workplace) containers used immediately by the person performing the transfer do not need labels
3. Non-hazardous substances (e.g., distilled water) should be labeled in order to avoid confusion

E. Acceptable labeling conventions

1. Best practice is to include all information that is provided on the manufacturer's label
2. If a set of abbreviations is used routinely in the work area, definitions of the abbreviations must be posted in a prominent place in the work area and available to all employees
3. Alternative methods such as signs, placards, process sheets, and operating procedures are acceptable for individual stationary process containers, provided that the information is conveyed to all affected persons. Commonly used labeling systems include Department of Transportation, National Fire Protection Association and Hazardous Materials Identification System (see Appendix D)
4. Examples of acceptable labeling conventions include:
   a) Small volume containers such as micro-scale test tubes and vials can be placed in a rack and the rack can be labeled with the name of the hazardous chemical and the appropriate hazard
   b) Containers are labeled with a symbol and a sign is posted defining the meaning of the symbol; the posted information must include the name of the hazardous chemical and the appropriate hazard
   c) Secondary container labeled with unique product or common name must also contain the appropriate hazard warning; example "Marking Paint."
5. Workplace Signage The poster "Safety Data Sheets, Labels, and Hazardous Chemical Emergencies," (see Appendix E) must be displayed in all areas where hazardous chemicals are used, handled or stored. Departments must fill in all blank spaces (e.g., location of SDSs) on the poster.
6. Labeled/Unlabeled Pipes
7. Aboveground pipes transporting hazardous substances (gases, vapors, liquids, semi-liquids, or plastics) shall be labeled in accordance to CFR 1910.1200, "Identification of Piping." Employees shall not work on any unlabeled pipes until:
   a) The contents of the pipe are determined
   b) Appropriate safety precautions have been determined for the work
8. Labels on Containers Leaving Campus: All off campus shipments of hazardous chemicals must comply with the current U.S. Department of Transportation (DOT) requirements.

X. EMPLOYEE INFORMATION AND TRAINING

A. Employees must complete the initial Hazard Communication training. Refresher training is required every year within the department or by retaking the course. In addition, employees must be trained on the specific hazards of the chemicals used in their department. Training must cover the following:

1. Signs and symptoms related to the exposures to hazardous chemicals used in the work area
2. The methods used to detect the presence or release of a hazardous chemical. This could include industrial hygiene monitoring, the use of continuous monitoring devices, visual appearance, or odors of chemicals

3. Specific procedures to protect employees such as safe work practices, standard operating procedures (SOPs), emergency response procedures, and use of personal protective equipment
4. Details of manufacturer labels, SDSs and workplace labeling system, and how that information can be used to assure safe handling and storage
5. Procedure for addressing non-routine tasks involving hazardous chemicals

B. Frequency: Supervisors must provide employees information and training regarding the physical and health hazards of the chemicals in the work area before assigning employees to work with hazardous chemicals. Refresher training is required whenever a new chemical hazard is introduced into the workplace or a new or updated SDS is received. Refresher training must be completed at least once each year.

C. Non-Routine Tasks: Employees must be provided training or refresher training prior to engaging in a non-routine task. Employees must be provided hazard notification and precautionary measures to avoid or minimize the potential for risk of exposure.

D. Documentation and Record Retention: Training must be documented and records must be retained for at least three years. The Illness & Injury Prevention Program Safety Training Attendance Record or its equal may be used to document instructor-led training. At a minimum, the following information must be documented:

1. Name of individual(s) trained
2. Name of individual(s) providing training for instructor-led courses
3. Date of training
4. Brief description of training topics covered

E. Computer-based training provided by Centurion Power Learning Management System will be documented electronically.

XI. MULTI-EMPLOYER WORKPLACES (Informing Contractors and Contract Workers)

A. Hazard information, which includes access to SDS, must be made available to contractors and contract workers if the work is to be performed in the presence of hazardous chemicals. Contractors and contract workers must also disclose hazard information for hazardous chemicals that are brought into the work area that may affect campus employees.

XII. EMERGENCY PROCEDURES

A. Employees shall follow emergency procedures covered in their Location specific Emergency Action Plan. Emergency response procedures are also covered in the SDSs, labels, and Centurion Power Crises Management/Emergency Response Guide.

XIII. PROGRAM REVIEW

A. H&S will conduct a periodic program review at least once every three (3) years.

XIV. APPENDICES

A. Department-Specific Hazard Communication Program Summary

B. Safety Data Sheets

C. GHS Pictograms and Labels

D. Common Labeling Systems

1. U. S. Department of Transportation (DOT)
2. National Fire Protection Association (NFPA)
3. Hazardous Materials Identification System (HMIS)

E. Safety Data Sheets, Labels and Hazardous Chemical Emergencies Poster

XV. REFERENCES

29 CFR 1910.1200
OSHA and Cal/OSHA Hazard Communication Standard, CFR 1910.1200 and CCR Title 8, §5194)

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6/1/2024	6/1/2024		Create Document	TONY ASCIUTTO

Appendix A

HAZARD COMMUNICATION PROGRAM SUMMARY

Instruction: Complete the required information below to document Location -specific information. This summary, along with Centurion Power Hazard Communication Program satisfies the OSHA 1910.1200 and Cal/OSHA requirements (8 CCR §5194).

Departments who handle, use or store hazardous chemicals in an industrial (non-laboratory) workplace are required to comply with Hazard Communication (Hazcom) Standard. The requirements include:

- **Written Hazcom Program** – Centurion Power has a Hazcom program which includes this Location-specific summary page. Locations must complete this summary page to document Location-specific information. Along with this summary page, Locations must comply with the Hazcom program, posted on the Internal "The Well" website.
- **Hazardous Chemical Inventory** - Chemical inventories must be maintained in Centurion Power Chemical Inventory System (CIS)
- **Safety Data Sheets (SDSs)** - An SDS is required for every hazardous chemical in the workplace and must be accessible during the work shift; departments may elect to store electronic copies or maintain hard copies
- **Labels and Other Forms of Warning** - In-house labels (sometimes called secondary (workplace) labels) must contain, at minimum, the identity of the chemical and its appropriate hazard warning
- **Training and Information** - Supervisor must provide training and information at time of initial assignment, whenever a new hazard is introduced into the workplace, and when employees may be exposed to other employers' workplace hazards; refresher training is required at least every year
- **Unlabeled Pipes and Non-Routine Tasks** - Supervisor must provide detailed hazard and procedural information prior to engaging in the task
- **Contractors and Multi-Employer Worksites** - Supervisors must inform contractors or other employers of hazardous chemicals present in the work area, precautionary measures and other information needed; contractors must notify departments of any hazardous chemicals brought into the department
- **Emergencies** - Follow Location Emergency Action Plan, and/or response actions described in SDSs; only trained personnel may clean up spills; if spill is too large to clean up or if there is imminent danger, **call 911.**

Locations covered under this program:
Building(s)/ Room #(s):

Location of:
Emergency Action Plan
Written Hazcom Program Summary
Chemical inventory (hard copy, if any)
Safety Data Sheets (hard copies, if any)
"Safety Data Sheets, Labels, and Hazardous Chemical Emergencies" poster

Location Hazcom Contact:

Location Safety Representative:

Other Location Specific Information:

Appendix B

SAFETY DATA SHEETS

The Hazard Communication Standard requires manufacturers to provide GHS-compliant SDSs (formerly known as MSDSs) by June 2015. The SDS must be in a uniform 16-section format which includes the sections described below. This information was taken from the OSHA Hazcom SDS Quick card. Detailed information can be found at https://www.osha.gov/Publications/OSHA3636.pdf .

Section 1, Identification: Includes product identifier; manufacturer or distributor name, address, phone number; emergency phone number; recommended use; restrictions on use.	**Section 10, Stability and reactivity**: Lists chemical stability and possibility of hazardous reactions.
Section 2, Hazard(s) identification: Includes all hazards regarding the chemical; required label elements.	**Section 11, Toxicological information:** Includes routes of exposure; related symptoms, acute and chronic effects; numerical measures of toxicity.
Section 3, Composition/information on ingredients: Includes information on chemical ingredients; trade secret claims.	**Section 12, Ecological information***
Section 4, First-aid measures: Includes important symptoms/effects, acute, delayed; required treatment.	**Section 13, Disposal considerations***
Section 5, Fire-fighting measures: Lists suitable extinguishing techniques, equipment; chemical hazards from fire.	**Section 14, Transport information***
Section 6, Accidental release measures: Lists emergency procedures; protective equipment; proper methods of containment and cleanup.	**Section 15, Regulatory information***
Section 7, Handling and storage: Lists precautions for safe handling and storage, including incompatibilities.	**Section 16, Other information:** Includes the date of preparation or last revision.
Section 8, Exposure controls/personal protection: Lists OSHA's Permissible Exposure Limits (PELs); Threshold Limit Values (TLVs); appropriate engineering controls; personal protective equipment (PPE).	Employers must ensure that: • SDSs are readily accessible to employees; • Employees are trained on how to interpret SDSs; • Document training; and • Retain records for at least a year
Section 9, Physical and chemical properties: Lists the chemical's characteristics.	

**Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15.*

Appendix C

GHS PICTOGRAMS AND LABELS

GHS – Hazard Pictograms and Related Hazard Classes		
		
Exploding Bomb • Explosives • Self-reactive • Organic peroxides	**Corrosion** • Skin corrosion/burns • Eye damage • Corrosive to metals	**Flame Over Circle** • Oxidizing gases • Oxidizing liquids • Oxidizing solids
		
Gas Cylinder • Gases under pressure	**Environment** • Aquatic toxicity	**Skull & Crossbones** • Acute toxicity (fatal or toxic)
		
Exclamation Mark • Irritant (eye & skin) • Skin sensitizer • Acute toxicity • Narcotic effects • Respiratory tract irritant • Hazardous to ozone layer (non-mandatory)	**Health Hazard** • Carcinogen • Mutagenicity • Reproductive toxicity • Respiratory sensitizer • Target organ toxicity • Aspiration toxicity	**Flame** • Flammables • Pyrophoric • Self-heating • Emits flammable gas • Self-reactive • Organic peroxides

The Hazard Communication Standard requires pictograms on manufacturer labels to alert users of the hazards associated with hazardous chemicals. Pictograms consist of a symbol on a white background with red border and represent a specific hazard. Pictograms are determined by the chemical hazard classification scheme found in Appendix A and B of the standard. Pictograms can be downloaded directly from https://www.osha.gov/dsg/hazcom/pictograms/index.html

OSHA (800) 321-OSHA (6742)

SAMPLE LABEL

PRODUCT IDENTIFIER

CODE _____
Product Name _____

SUPPLIER IDENTIFICATION

Company Name_____
Street Address _____
City _____ State _____
Postal Code _____ Country _____
Emergency Phone Number _____

PRECAUTIONARY STATEMENTS

Keep container tightly closed. Store in cool, well ventilated place that is locked.
Keep away from heat/sparks/open flame. No smoking.
Only use non-sparking tools.
Use explosion-proof electrical equipment.
Take precautionary measure against static discharge.
Ground and bond container and receiving equipment.
Do not breathe vapors.
Wear Protective gloves.
Do not eat, drink or smoke when using this product.
Wash hands thoroughly after handling.
Dispose of in accordance with local, regional, national, international regulations as specified.

In Case of Fire: use dry chemical (BC) or Carbon dioxide (CO_2) fire extinguisher to extinguish.

First Aid
If exposed call Poison Center.
If on skin (on hair): Take off immediately any contaminated clothing. Rinse skin with water.

HAZARD PICTOGRAMS

SIGNAL WORD
Danger

HAZARD STATEMENT

Highly flammable liquid and vapor.
May cause liver and kidney damage.

SUPPLEMENTAL INFORMATION

Directions for use

_____
_____
_____

Fill weight: _____ Lot Number _____
Gross weight: _____ Fill Date: _____
Expiration Date: _____

GHS Label

GHS labels include the following elements:

- Product identifier
- Hazard pictograms
- Precautionary statements
- Hazard statement
- Signal word
- Supplier identifier
- Supplemental information

Information taken from OSHA Quick Card

Appendix D

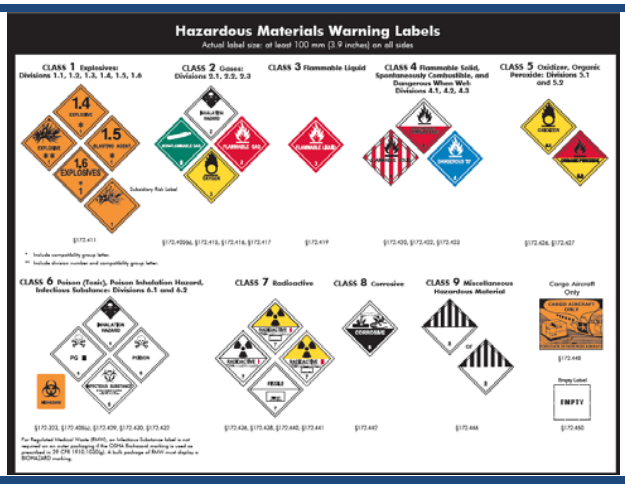
COMMON LABELING SYSTEMS:

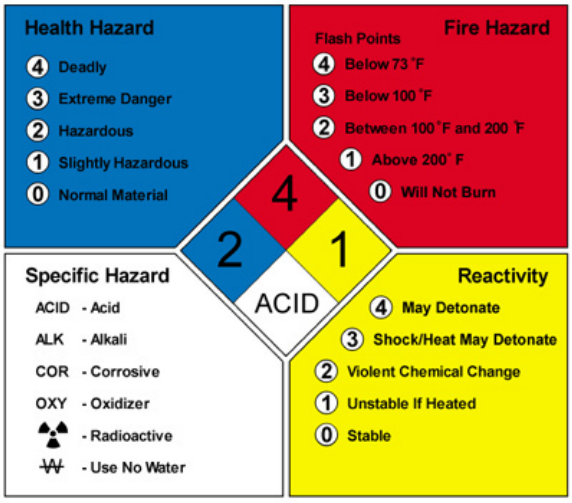
DOT, NFPA, HMIS

There are many labeling systems commonly used to communicate the potential hazards of chemicals. The more commonly used systems are from the U.S. Department of Transportation (DOT), National Fire Protection Association (NFPA) and the Hazardous Materials Identification System (HMIS).

U.S. Department of Transportation (DOT) system categorizes hazardous materials into nine classes:

Class 1: Explosives
Class 2: Gases
Class 3: Flammable Liquids
Class 4: Flammable Solids
Class 5: Oxidizers, Organic Peroxides
Class 6: Toxic (Poison)
Class 7: Radioactive
Class 8: Corrosive
Class 9: Miscellaneous



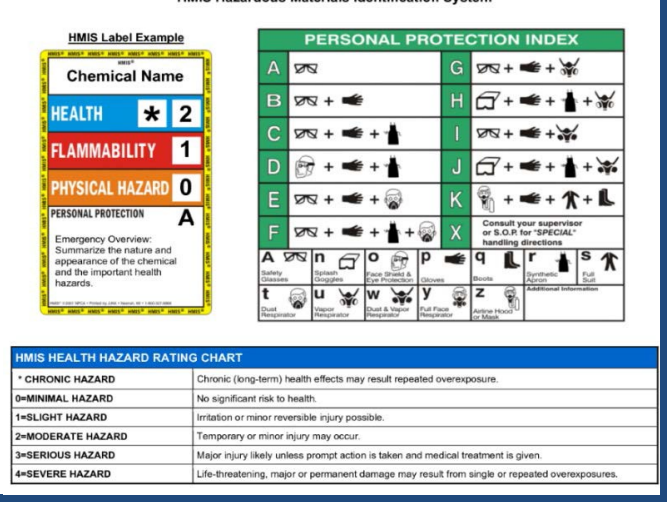


The National Fire Protection Association (NFPA) system consist of a diamond-shaped label with four sections that are color coded:

- Blue: Health Hazard
- Red: Fire hazard
- White: Specific Hazards
- Yellow: Reactivity

The numbering system ranges from zero (0) to four (4). The larger the number, the greater the hazard. Zero (0) is least hazardous and four (4) is the most hazardous. The NFPA codes describe how a material might behave in a fire situation.

The **Hazardous Materials Identification System (HMIS)** uses a similar numbering system as NFPA. The current version of the HMIS manual (HMIS III) updated the formerly yellow coded "Reactivity" section to an orange "Physical Hazard" section to align with OSHA Hazcom standard. The white colored "Personal Protection" section uses the HMIS personal protection index to describe the required personal protective equipment.



Appendix E

SAFETY DATA SHEETS, LABELS, *and* HAZARDOUS CHEMICAL EMERGENCIES

Location Name:
SDS Location:
Contact for SDS Information:

Hazard Communication Standard requires manufacturers of products containing hazardous chemicals to furnish safety data sheets (SDSs) for their products. The SDS provides information such as toxicity, flammability, and reactivity hazard data; handling and storage guidance; and emergency procedures to follow for spills, exposure, and fighting fires.

Manufacturers' labels must contain pictograms, signal words, hazard and precautionary statements, product identifier, and supplier information.

Hazardous chemicals are not limited to the laboratory. Materials such as cleaning agents, paints, art materials, photographic chemicals, and automotive supplies may contain hazardous chemicals. Whenever there is doubt about the hazards associated with any material, contact your Supervisor or Safety Department at 720-541-6613.

Prior to performing a non-routine or unfamiliar operation that may involve hazardous chemicals, contact your Supervisor or Location Safety Representative for information and training.

IN CASE OF EMERGENCY, CALL 911	
For Skin or Eye Contact, immediately flush the affected area with running water for at least 15 minutes. If a substantial portion of the body is involved, use a safety shower. Seek medical attention. If the chemical is toxic, or if its toxic properties are unknown, **call 911**. **For Inhalation or Ingestion**, follow instructions on the product label or SDS. Seek medical attention or **call 911**.	**For Chemical Spills**, check product label or SDS for instructions. If you suspect the chemical is flammable, extinguish all ignition sources. If instructions are not immediately available, the spill is large, or if chemical has definite or unknown corrosive, explosive, or toxic properties, evacuate and restrict access to the area and **call 911**. Clean up small spills only if you are trained and have access to spill kit supplies.

***NOTICE TO EMPLOYEES**: You have the right to see and copy your medical records and any records your employer maintains of your exposure to hazardous substances or harmful physical agents. In addition, you, your personal physician, or your collective bargaining agent may request information contained in SDSs. No discrimination action (including discharge) may be taken against you if you exercise your legal right.*

Centurion Power

HSE MANUAL

HSE 4

Injury Illness Prevention Plan

Revision 0
6/1/2024

I. SCOPE

1. Centurion Power recognizes the benefits of a safe and healthful work environment. Centurion Power is committed to maintaining a workplace that is as free from injuries and illnesses as is practically possible. Centurion Power also believes that input with regard to health and safety issues and concerns from all levels of personnel is a necessary requirement for achieving this objective, and as such has developed an Injury and Illness Prevention Program.
2. The principles that comprise the foundation of the company health and safety programs are:
    a. Occupational injuries and illnesses can be prevented
    b. Every employee has a responsibility for preventing injuries and illnesses
    c. Recognizing and correcting safety hazards is important in preventing incidents
    d. Deficiencies must be noted and corrected in a timely manner
    e. Sustained incidents can be useful tools in recognizing and preventing future occurrences
    f. Training is an essential element for promoting safe workplaces
    g. Working safe is as important as providing quality service in an efficient manner
3. In order to eliminate foreseeable hazards and maintain a safe and healthful work environment, Centurion Power will provide the opportunities and conditions to ensure safe work practices. In addition, for all locations will complies with federal, state, and municipal legislation, Centurion Power will fulfill the requirements of OSHA 29 CFR 1926.20 Regulations which stipulates that every employer within federal, state, and municipal shall write, establish, implement and maintain an effective Injury and Illness Prevention Program.

II. PLAN CONTENT

1. Depending on the type of operation and/or services provided by the individual facility, the site specific IIPP may differ from site to site on the exact content and format, however, at a minimum the following components must be included within the written plans which are procedurally put into practice.
2. Management Commitment/ Assignment of Responsibilities
    a. Employer Information
    b. Statement of Commitment to Safety
    c. IIPP Content Coordinator
    d. Program Administrator
    e. General Managers, Project Managers, and Supervisors Responsibilities
3. Compliance Systems
    a. Management Role
    b. Employees' Role
    c. System for assuring employee compliance with safe work practices
    d. Safety Communication Systems with Employees
    e. Hazard Assessment System
    f. Scheduled Inspections / Evaluation System (i.e., Audits)

g. Variances

h. Accident Investigation

i. Hazard Correction Procedures for correcting unsafe/ unhealthy conditions)

j. Safety and Health Training and Instruction

k. Recordkeeping and Documentation

III. MANAGEMENT ROLE

1. Employer Information

Centurion Power

34019 East 15th Street

Washougal, WA 98671

2. Statement of Commitment to Safety

Centurion Power is committed to a standard of excellence as a health and safety leader and affirm to its employees, customers, and the public that it will always conduct its business activities in a manner which is protective of human health, safety and the environment. All Centurion Power Companies, contractors, and subcontractors under our operating control must manage Health, Safety and Environmental performance/systems in line with this Commitment and Policy.

Centurion Power Corporate Health, Safety and Environmental Policy is intended to ensure that Centurion Power continuously achieves superior performance in fulfilling this Commitment while providing an enabling environment that allows all employees to participate and work collaboratively in developing, promoting, and improving health and safety at work.

a. We will continuously ensure that all our activities comply with federal, state, provincial, and local health, safety, and environmental statutes and regulations. We will make every effort to exceed those standards whenever possible to further enhance health and safety and environmental stewardship.

b. We will plan work on the principle of safety first to pursue the goal of no harm to people or the environment.

c. We will strive to continually improve the performance of Centurion Power, Safety and Environmental Management System. This includes providing the necessary training, equipment, and procedures to ensure a safe work environment.

d. We will conduct audits and self-assessments of compliance with this Policy, measure progress of the Centurion Power Health and Safety performance to ensure that results demonstrate continual improvement, and report periodically to the Chief Executive Officer our performance.

e. Every employee, contractor, and subcontractor on Centurion Power premises or projects are accountable and responsible for adhering to this Commitment and to comply with the law and all Policies and Procedures.

f. Every employee holds the right and responsibility of intervening in unsafe or non-compliant situations and to refuse work if they believe that a dangerous situation or imminent danger exists at a worksite. It is an expectation of all employees to immediately report health and safety concerns, interventions, and work refusals to Centurion Power management. Centurion Power managers are expected to take prompt and appropriate remedial action when notified.

g. All employees are encouraged to seek guidance from their supervisor, the Director of Human Resources, the Director of Safety if they have reason to believe the Company's Health, Safety standards are being violated.

h. Management. Centurion Power Managers are expected to take prompt and appropriate remedial action if notified of a health or safety concern.

3. IIPP Content Administrator

   a. The Director of Safety has responsibility for the contents and revisions of the Injury Illness Prevention Plan. No revisions or additions shall take place without the written permission of the Director of Safety.

4. IIPP Program Administrator

   a. The Director of Safety has the responsibility and held accountable over the implementation of the IIPP. The Director of Safety may delegate all or part the responsibility to a staff member.

5. Project Managers and Supervisors Responsibilities

   a. Project managers and Supervisors are responsible for the implementing and maintaining the IIPP program in their work areas. Employee questions will be addressed by the Project Manager and Supervisor regarding the IIPP. A copy will be in the possession of each Project Manager and Supervisor when in the field.

6. Management Responsibility

   a. Management is responsible for ensuring that all safety and health policies and procedures are clearly communicated and understood by all employees. Managers and supervisors are expected to enforce the rules fairly, uniformly and encourage employees to inform the employer of hazards at the worksite without fear of reprisal.

7. Employee Responsibility

   a. All employees are responsible for using safe work practices, for following all directives, policies and procedures, and for assisting in maintaining a safe work environment. All employees are expected to stop any unsafe act or job.

   b. Centurion Power has a system where by employees can report any safety hazard anonymously without fear of reprimand or reprisals. Reporting can be done through the following:

      i. Email to Human Resources HR or Health and safety

      ii. Hazard ID cards

      iii. Suggestion boxes

8. System to Ensure Compliance

   a. Centurion Power systems of ensuring that all workers comply with the rules and maintain a safe work environment include:

      i. Informing workers of the provisions of our IIP Program;

      ii. Evaluating the safety performance of all workers;

      iii. Recognizing employees who perform safe and healthful work practices;

      iv. Providing training to workers whose safety performance is deficient;

v. Disciplining workers for failure to comply with safe and healthful work practices

vi. Behavioral based observations to identify unsafe behaviors

9. Communication

a. Centurion Power recognizes that open, two-way communication between management and staff on health and safety issues is essential to an injury-free, productive workplace. The following system of communication is designed to facilitate a continuous flow of safety and health information between management and staff in a form that is readily understandable and consists of one or more of the following checked items:

i. New worker orientation including a discussion of safety and health policies and procedures.

ii. Review of our IIP Program.

iii. The IIPP will be review annually by the IIPP Content Administrator and the Program Administrators.

a. The IIPP review will take place in the fourth quarter of each year annually.

b. Workplace safety and health training programs.

iv. Regularly scheduled safety meetings.

v. Daily JSA's and Risk Assessments will be performed, processes, procedures, or equipment are introduced to the workplace that represents a new occupational safety and health hazard; and whenever a new or previously unrecognized hazard arises.

vi. Effective communication of safety and health concerns between workers and supervisors.

a. Employees have the authority to stop work activities they feel is unsafe.

b. During Tailgate meeting employees are to bring up safety concerns to Project Manager

vii. Posted or distributed safety information.

b. A labor/management safety and health committee that meets regularly, prepares written records of the safety and health committees meetings, reviews results of the periodic scheduled inspections, reviews investigations of accidents and exposures and makes suggestions to management for the prevention of future incidents, reviews investigations of alleged hazardous conditions, and submits recommendations to assist in the evaluation of employee safety suggestion.

10. Hazard Assessment

a. Periodic inspections to identify and evaluate workplace hazards shall be performed by competent observer(s) in the following areas of our workplace in accordance with audit policy.

b. Audits: Periodic inspections are performed according to the following schedule:

i. When we initially established our IIP Program;

ii. When new substances, processes, procedures or equipment which present potential new hazards are introduced into our workplace;

iii. When new, previously unidentified hazards are recognized;

iv. When occupational injuries and illnesses occur;

v. When we hire and/or reassign permanent or intermittent workers to processes, operations, or tasks for which a hazard evaluation has not been previously conducted;

vi. Whenever workplace conditions warrant an inspection.

c. Periodic inspections consist of identification and evaluation of workplace hazards utilizing predetermined methods to identify and evaluate workplace hazards. Periodical inspections will be documents and tracked by Director of Safety.

d. Variance

i. In the case of a situation that has not been covered by written policy to remediate a hazard a variance must be obtained.

11. Accident Investigation

a. Procedures for investigating workplace accidents and incidents are found in Incident reporting policy.

b. The following items are addressed in the Incident reporting policy;

i. Visiting the accident scene as soon as possible;

ii. Interviewing injured workers and witnesses;

iii. Examining the workplace for factors associated with the accident/exposure;

iv. Determining the cause of the accident/exposure;

v. Taking corrective action to prevent the accident/exposure from reoccurring;

vi. Recording the findings and corrective actions taken.

12. Hazard Correction

a. Unsafe or unhealthy work conditions, practices or procedures shall be corrected in a timely manner based on the severity of the hazards. Hazards shall be corrected according to the following procedures:

i. When observed or discovered;

ii. When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, we will remove all exposed workers from the area except those necessary to correct the existing condition.

iii. Workers necessary to correct the hazardous condition shall be provided with the necessary protection;

b. All such actions taken and dates they are completed shall be documented on the appropriate forms.

c. In the case of a situation that has not been covered by written policy to remediate a hazard a variance must be obtained.

13. Training and Instruction

a. All workers, including managers and supervisors, shall have training and instruction on general and job-specific safety and health practices. Training and instruction shall be provided as follows:

i. When the IIP Program is first established;

ii. To all new workers

iii. To all workers given new job assignments for which training has not previously provided;

iv. Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard;

v. Whenever the Centurion Power is made aware of a new or previously unrecognized hazard;

vi. To supervisors to familiarize them with the safety and health hazards to which workers under their immediate direction and control may be exposed;

vii. To all workers with respect to hazards specific to each employee's job assignment.

b. Workplace safety and health practices for all industries include, but are not limited to, the following:

i. Explanation of the employer's IIP Program, emergency action plan and fire prevention plan, and measures for reporting any unsafe conditions, work practices, injuries and when additional instruction is needed.

ii. Use of appropriate clothing, including gloves, footwear, and personal protective equipment.

iii. Information about chemical hazards to which employees could be exposed and other hazard communication program information.

iv. Provisions for medical services and first aid including emergency procedures.

c. In addition, we provide specific instructions to all workers regarding hazards unique to their job assignment, to the extent that such information was not already covered in other training.

14. Recordkeeping

a. Centurion Power is a low hazard industry. We have taken the following steps to implement and maintain our IIP Program:

i. Records of hazard assessment inspections, including the person(s) or persons conducting the inspection;

ii. Documentation of safety and health training for each worker, including the worker's name or other identifier, training dates, type(s) of training, and training providers are recorded on PayCom learning Management System. All training records and documentation are available upon request through the Local offices and corporate offices.

b. Inspection records and training documentation will be maintained for three years, except for training records of employees who have worked for less than one year.

15. Standard Operating Procedures & Safe Work Practices

a. Centurion Power locations must develop site specific Standard Operating Procedures and/or Safe Work Practices to ensure compliance to corporate Health & Safety Standards. These SOPs/SWPs must, at a minimum, be as stringent as Corporate Standards, while maintaining compliance with all applicable legislative bodies for the area work is performed in.

IV. References

1. Cal/OSHA Title 8

REVISION DATE	REVIEW DATE	REVISION NUMBER	REVISION COMMENTS	AUTHOR
6/1/2024	6/1/2024	0	Create Document	Tony Asciutto

Centurion Power

HSE MANUAL

HSE 5

Emergency Action Plan (EAP) Policy

Revision 0
6/1/2024

I. SCOPE

1. Centurion Power Emergency Action Plan is designed to minimize injury and loss of human life and company resources by training employees, procuring and maintaining necessary equipment, and assigning responsibilities. This plan applies to all emergencies that may reasonably be expected to occur at the various Centurion Power locations.
2. This policy is designed to be an outline for each location to develop its own Emergency Action Plan specific to that location.

II. ASSIGNMENT OF RESPONSIBILITIES

1. Emergency Plan Manager
    a. The Director of Safety shall manage the Emergency Action Plan policy for CenturionPower. The Director of Safety shall also maintain all training records pertaining to this plan. The plan director is responsible for scheduling routine tests of the Centurion Power overall emergency notification system with the appropriate local Emergency Plan Coordinators.
    b. The Director of Safety shall ensure local Emergency Plan Coordinators work with local public resources, such as fire department and emergency medical personnel, to ensure that they are prepared to respond as detailed in this plan.
    c. The Director of Safety may be contacted by employees who need more information about the plan or an explanation of their duties under the plan.
2. Emergency Plan Coordinators
    a. The Centurion Power Emergency Plan Coordinators are assigned for each Centurion Power Location.
    b. The Coordinator will be responsible for the implementation of this policy for their location.
3. Evacuation Wardens
    a. Wardens are assigned by the Emergency Plan Coordinator for each location.
    b. Emergency Plan Coordinators can act as an Evacuation warden in smaller locations.
    c. Wardens are responsible to ensure all employees in their assigned area have evacuated the building during an emergency.
    d. Wardens should be issued a High Visibility Vest when acting in their capacity as a warden.

III. PLAN IMPLEMENTATION

1. Reporting Fire and Emergency Situations
    a. All fires and emergency situations will be reported as soon as possible to Emergency Plan Coordinator by one of the following means:
        i. Verbally, as soon as possible during normal work hours
2. To eliminate confusion and the possibility of false alarms, only the Emergency Plan Coordinator is authorized to contact the appropriate community emergency response personnel. The

telephone numbers and contact information for the emergency response personnel for Centurion Power:

a. Fire: 911

b. Police/Sheriff: 911

c. Ambulance/EMS: 911

3. Under no circumstances shall an employee attempt to fight a fire that has passed the incipient stage (that which can be put out with a fire extinguisher), nor shall any employee attempt to enter a burning building to conduct search and rescue. These actions shall be left to emergency services professionals who have the essential training, equipment, and experience (such as the fire department or emergency medical professionals). Untrained individuals may endanger themselves and/or those they are trying to rescue.

4. Informing Centurion Power Employees of Fires and Emergency Situations

    a. In the event of a fire or emergency situation, Emergency Plan Coordinators shall ensure that all employees are notified as soon as possible using the building alarm system (which includes both audible and visual alarms 24 hours a day). Responsible Person shall provide special instructions to all employees via the public address system.

    b. If a fire or emergency situation occurs after normal business hours, Emergency Plan Coordinators shall contact all employees not on shift of future work status, depending on the nature of the situation.

5. Corporate Notification

    a. Emergency Plan Coordinators shall contact Centurion Power senior management as soon as possible if media coverage of the situation is expected.

    b. Emergency Plan Coordinators shall contact the Director of Safety as soon as possible with information on employee injuries and/or loss of life, property damages, or theft.

6. Emergency Contact Information

    a. Emergency Plan Coordinators shall maintain a list of all employees' personal emergency contact information and shall keep the list in a specific location for easy access in the event of an emergency.

7. Evacuation Routes

    a. Emergency evacuation escape route plans (see Appendix A) are posted in Designated Areas throughout office. In the event that a fire/emergency alarm is sounded or instructions for evacuation are given by Emergency Plan Coordinators, all employees shall immediately exit the building at the nearest exits as shown in the escape route plans, and shall meet as soon as possible at the Designated Assembly Area.

    b. Mobility impaired employees and their assigned assistants will gather at the Designated Area within the building to ensure safe evacuation in the pre-determined fashion.

8. Advanced Medical Care

    a. Under no circumstances shall an employee provide advanced medical care and treatment. These situations shall be left to emergency services professionals, or specially trained personal, which have the necessary training, equipment, and experience.

9. Accounting for Employees/Visitors After Evacuation

a. Once an evacuation has occurred, an Emergency Plan Coordinators and wardens shall account for each employee/visitor assigned to them at the Designated Assembly Area. Each employee is responsible for reporting to the appropriate Emergency Plan Coordinators and wardens so an accurate head count can be made. All employee counts shall then be reported to the Emergency Plan Manager as soon as possible.

10. Re-entry

a. Once the building has been evacuated, no one shall re-enter the building for any reason, except for designated and properly trained rescue personnel (such as fire department or emergency medical professionals).

b. All employees shall remain at the Designated Assembly Area until the fire department or other emergency response agency notifies Emergency Plan Coordinators and wardens that either:

i. The building is safe for re-entry, in which case personnel shall return to their workstations; or

ii. The building/assembly area is not safe, in which case personnel shall be instructed by Emergency Plan Coordinators how and when to vacate the premises.

11. Sheltering in Place

a. In the event that chemical, biological, or radiological contaminants are released into the environment in such quantity and/or proximity to an Centurion Power location, authorities and/or Emergency Plan Coordinators may determine that is safer to remain indoors rather than to evacuate employees. The Emergency Plan Coordinators shall announce *Shelter in Place* status by public address system or other means of immediate notification available at worksite.

b. Emergency Plan Coordinators shall immediately close the business. If there are customers, clients, or visitors in the building, they shall be advised to stay in the building for their safety.

c. Unless there is an imminent threat, employees, customers, clients, and visitors shall call their emergency contacts to let them know where they are and they are safe.

d. Emergency Plan Coordinators shall turn on call-forwarding or alternative telephone answering systems or services. The recording for voice mail or automated attendant shall be changed to indicate that the business is closed, and that staff and visitors will be remaining in the building until authorities advise that it is safe to leave.

e. Emergency Plan Coordinators shall quickly lock exterior doors and close windows, air vents, and fireplace dampers. Emergency Plan Coordinators familiar with the building's mechanical systems shall turn off, seal, or disable all fans, heating and air conditioning systems, and clothes dryers, especially those systems that automatically provide for exchange of inside air with outside air. If there is a danger of explosion, Emergency Plan Coordinators shall close the window shades, blinds, or curtains.

f. All employees, customers, and visitors shall move immediately to the Shelter-In-Place locations within the building. Emergency Plan Coordinators shall seal all windows, doors, and vents with plastic sheeting and duct tape.

g. Emergency Plan Coordinators shall write down the names of everyone in the room, and call the designated emergency contact outside of the building to report who is in the room, and their affiliations with Company Name (employee, visitor, client, and customer).

h. Emergency Plan Coordinators shall monitor telephone, radio, television, and Internet reports for further instructions from authorities to determine when it is safe to leave the building.

12. Severe Weather

a. The Emergency Plan Coordinators shall announce severe weather alerts (such as tornados) by public address system or other means of immediate notification available at worksite. All employees shall immediately retreat to the Designated Area until the threat of severe weather has passed as communicated by the Emergency Plan Coordinators.

IV. TRAINING

1. All employees shall receive instruction on this Emergency Action Plan as part of New Employee Orientation upon hire. Additional training shall be provided:
    a. When there are any changes to the plan and/or facility
    b. When an employee's responsibilities change
    c. Annually as refresher training
2. Items to be reviewed during the training include:
    a. Proper housekeeping
    b. Fire prevention practices
    c. Fire extinguisher locations, usage, and limitations
    d. Threats, hazards, and protective actions
    e. Means of reporting fires and other emergencies
    f. Names of Emergency Action Plan Manager and Coordinators
    g. Individual responsibilities
    h. Alarm systems
    i. Escape routes and procedures
    j. Emergency shut-down procedures
    k. Procedures for accounting for employees and visitors
    l. Closing doors
    m. Sheltering in place
    n. Severe weather procedures
    o. Emergency Action Plan availability
3. Fire/Evacuation Drills
    a. Fire/Evacuation drills shall be conducted at least annually, and shall be conducted in coordination with local police and fire departments. Additional drills shall be conducted if physical properties of the business change, processes change, or as otherwise deemed necessary.

4. Training Records

    a. Responsible Person shall document all training pertaining to this plan and shall maintain records on Centurion Power Learning Management Systems.

V. PLAN EVALUATION

1. This Emergency Action Plan shall be reviewed annually, or as needed if changes to the worksite are made, by Emergency Plan Coordinators. Following each fire drill, Responsible Management and Employee Representatives shall evaluate the drill for effectiveness and weaknesses in the plan, and shall implement changes to improve it.

REVISION DATE	REVIEW DATE	REVISION NUMBER	REVISION COMMENTS	AUTHOR
6/1/2024	6/1/2024	1	Create document	Tony Asciutto

Centurion Power Local Emergency Action Plan			
Location Address:			
Local Emergency Plan Coordinator:			
Local Emergency Services Phone Numbers			
Police/Sheriff's department		911	
Fire Department		911	
Ambulance/EMS		911	
Safety Department		--	
HR Department		--	
Fleet Department		--	
Building Maintenance			
Emergency Response Plan Details			
Evacuation Muster Point:			
Warden 1		Area of responsibility	
Warden 2		Area of responsibility	
Warden 3		Area of responsibility	
List potential local emergencies, I.e. Tornados, Hurricanes Snow storms etc.			
1.			
2.			
3.			
4.			
Creation Date:		Annual review Date:	

Emergency Evacuation Diagram			
Location:		Emergency Plan Coordinator :	

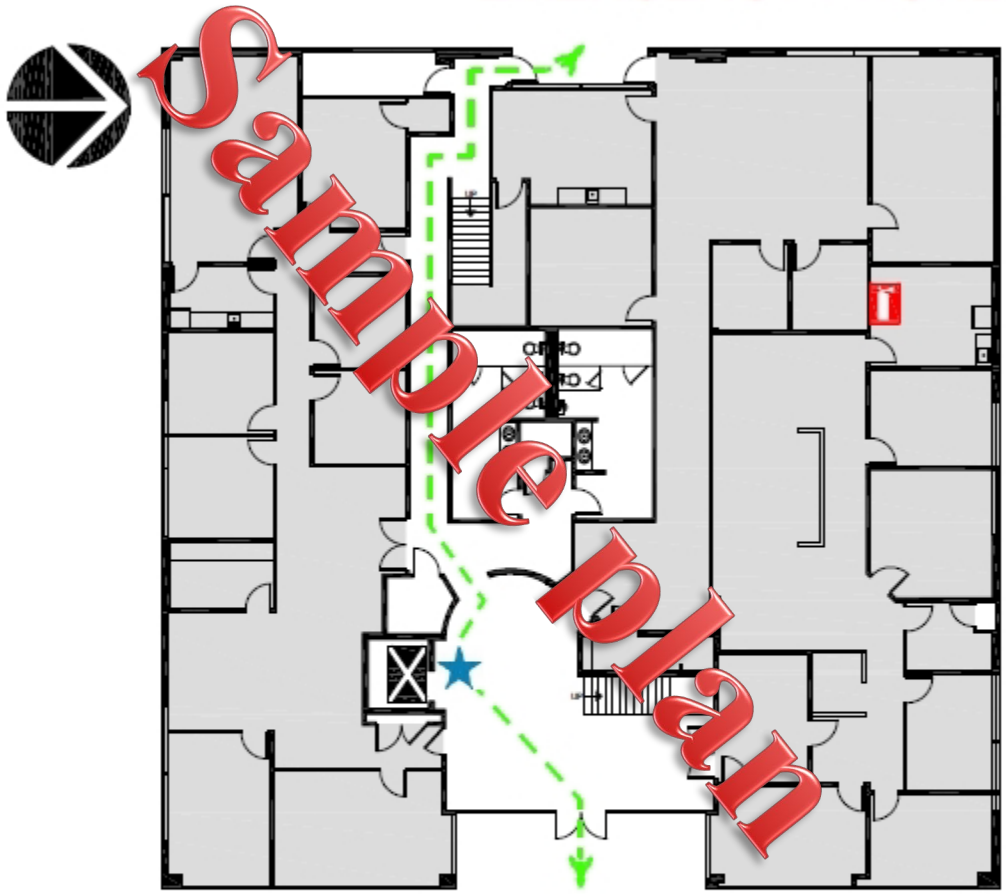
Emergency Evacuation Diagram			
Location:		Emergency Plan Coordinator :	

EVACUATION PLAN

1234 ANY ST.

1 st Floor

EMERGENCY PHONE #: 911



YOU ARE HERE

ELEVATOR

FC FIRE CAB

STAIRWAY

FIRE HOSE or EXTINGUISHER

PULL BOX

EXIT ROUTES

PERSONS WITH DISABILITIES SHALL CALL 911 TO REPORT THEIR LOCATION & PROCEED TO NEAREST STAIRWELL & AWAIT ASSISTANCE.

IN CASE OF FIRE DO NOT USE ELEVATOR USE STAIRS

ALL ALARMS - HORN SOUND

Centurion Power

HSE MANUAL

HSE 6

General Health and Safety Policy

Revision 0
6/1/2024

I. SCOPE

1. Centurion Power recognizes the benefits of a safe and healthy work environment. Centurion Power is committed to maintaining a workplace that is as free from injuries and illnesses as is practically possible. Centurion Power also believes that input with regard to health and safety issues and concerns from all levels of personnel is a necessary requirement for achieving this objective, and as such has developed an General Health and Safety Provisions for employees to follow.
2. In order to eliminate foreseeable hazards and maintain a safe and healthful work environment, Centurion Power will provide the opportunities and conditions to ensure safe work practices. In addition, for all locations will comply with federal, state, and municipal legislation.

II. PLAN CONTENT

1. Management Responsibility
    a. Management is responsible for ensuring that all safety and health policies and procedures are clearly communicated and understood by all employees. Managers and supervisors are expected to enforce the rules fairly, uniformly and encourage employees to inform the employer of hazards at the worksite without fear of reprisal.
2. Employee Responsibility
    a. All employees are responsible for using safe work practices, for following all directives, policies and procedures, and for assisting in maintaining a safe work environment. All employees are expected to stop any unsafe act or job.
    b. Centurion Power has a system where by employees can report any safety hazard anonymously without fear of reprimand or reprisals. Reporting can be done through the following:
        i. Email to Human Resources HR or Health and Safety
        ii. Hazard ID cards
        iii. Suggestion boxes
    c. Code of Safe Practices
        i. All persons shall follow these safe practice rules, render every possible aid to safe operations, and report all unsafe conditions or practices to the foreman or superintendent.
        ii. Foremen shall insist on employees observing and obeying every rule, regulation, and order as is necessary to the safe conduct of the work, and shall take such action as is necessary to obtain observance.
        iii. Anyone known to be under the influence of drugs or intoxicating substances that impair the employee's ability to safely perform the assigned duties shall not be allowed on the job while in that condition.
        iv. Horseplay, scuffling, and other acts that tend to have an adverse influence on the safety or well-being of the employees shall be prohibited.
        v. Work shall be well planned and supervised to prevent injuries in the handling of materials and in working together with equipment.

vi. No one shall knowingly be permitted or required to work while the employee's ability or alertness is so impaired by fatigue, illness, or other causes that it might unnecessarily expose the employee or others to injury.

vii. Employees shall not enter manholes, underground vaults, chambers, tanks, silos, or other similar places that receive little ventilation, unless it has been determined that is safe to enter.

viii. Employees shall be instructed to ensure that all guards and other protective devices are in proper places and adjusted, and shall report deficiencies promptly to the foreman or superintendent.

ix. Workers shall not handle or tamper with any electrical equipment, machinery, or air or water lines in a manner not within the scope of their duties, unless they have received instructions from their foreman.

x. All injuries shall be reported promptly to the supervisor so that arrangements can be made for medical or first aid treatment.

xi. When lifting heavy objects, proper lifting techniques should be used.

xii. Inappropriate footwear or shoes with thin or badly worn soles shall not be worn.

xiii. Materials, tools, or other objects shall not be thrown from buildings or structures until proper precautions are taken to protect others from the falling objects.

3. Hazard Assessment

   a. Periodic inspections to identify and evaluate workplace hazards shall be performed by competent observer(s) in the following areas of our workplace in accordance with audit policy.

   b. Audits: Periodic inspections are performed according to the following schedule:

      i. When we initially established our Management Program;

      ii. When new substances, processes, procedures or equipment which present potential new hazards are introduced into our workplace

      iii. When new, previously unidentified hazards are recognized

      iv. When occupational injuries and illnesses occur

      v. When we hire and/or reassign permanent or intermittent workers to processes, operations, or tasks for which a hazard evaluation has not been previously conducted

      vi. Whenever workplace conditions warrant an inspection

   c. Periodic inspections consist of identification and evaluation of workplace hazards, Equipment and Materials to identify and evaluate potential unsafe conditions or workplace hazards. Periodical inspections will be documents and tracked by Director of Safety.

   d. Variance

      i. In the case of a situation that has not been covered by written policy to remediate a hazard a variance must be obtained.

4. Accident Investigation

a. Procedures for investigating workplace accidents and incidents are found in Incident Reporting Policy .

b. The following items are addressed in the Incident Reporting Policy

i. Visiting the accident scene as soon as possible

ii. Interviewing injured workers and witnesses

iii. Examining the workplace for factors associated with the accident/exposure

iv. Determining the cause of the accident/exposure

v. Taking corrective action to prevent the accident/exposure from reoccurring

vi. Recording the findings and corrective actions taken

5. Hazard Correction

a. Unsafe or unhealthy work conditions, practices or procedures shall be corrected in a timely manner based on the severity of the hazards. Hazards shall be corrected according to the following procedures:

i. When observed or discovered

ii. When an imminent hazard exists which cannot be immediately abated without endangering employee(s) and/or property, we will remove all exposed workers from the area except those necessary to correct the existing condition

iii. Workers necessary to correct the hazardous condition shall be provided with the necessary protection

b. All such actions taken and dates they are completed shall be documented on the appropriate forms

c. In the case of a situation that has not been covered by written policy to remediate a hazard a variance must be obtained

6. Training and Instruction

a. All workers, including managers and supervisors, shall have training and instruction on general and job-specific safety and health practices. Training and instruction shall be provided as follows:

i. To all new workers

ii. To all workers given new job assignments for which training has not previously provided

iii. Whenever new substances, processes, procedures or equipment are introduced to the workplace and represent a new hazard

iv. Whenever Centurion Power is made aware of a new or previously unrecognized hazard

v. To supervisors to familiarize them with the safety and health hazards to which workers under their immediate direction and control may be exposed

vi. To all workers with respect to hazards specific to each employee's job assignment

b. Workplace safety and health practices for all industries include, but are not limited to, the following:

i. Explanation of the safety policies, emergency action plan and fire prevention plan, and measures for reporting any unsafe conditions, work practices, injuries and when additional instruction is needed.

ii. Use of appropriate clothing, including gloves, footwear, and personal protective equipment.

iii. Information about chemical hazards to which employees could be exposed and other hazard communication program information.

iv. Provisions for medical services and first aid including emergency procedures.

c. For equipment being utilized only qualified and trained operators will be allowed to operate that equipment.

d. In addition, we provide specific instructions to all workers regarding hazards unique to their job assignment, to the extent that such information was not already covered in other training.

7. Recordkeeping

a. Centurion Power is a low hazard industry. We have taken the following steps to implement and maintain our Safety Management system:

i. Records of hazard assessment inspections, including the person(s) or persons conducting the inspection

ii. Documentation of safety and health training for each worker, including the worker's name or other identifier, training dates, type(s) of training, and training providers are recorded on Learning Management System. All training records and documentation are available upon request through the local offices and corporate offices.

b. Inspection records and training documentation will be maintained for three years, except for training records of employees who have worked for less than one year.

8. Standard Operating Procedures & Safe Work Practices

a. Centurion Power locations must develop site specific Standard Operating Procedures and/or Safe Work Practices to ensure compliance to corporate Health & Safety Standards. These SOPs/SWPs must, at a minimum, be as stringent as Corporate Standards, while maintaining compliance with all applicable legislative bodies for the area work is performed in.

III. References

CFR 1926.20

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Centurion Power

HSE MANUAL

HSE 7

Stop Work Authority Policy

Revision 0
6/1/2024

I. SCOPE

Centurion Power is committed to providing a safe and healthy work environment for our employees. Centurion Power purpose of this procedure is to ensure that all employees are given the responsibility and authority to stop work in progress when in their best judgment they consider this action necessary due to an observed at risk behavior or unsafe condition that could cause injury, illness, damage to property or the environment.

II. PROCEDURE

A. Reporting Unsafe Conditions:

1. Any time an employee feels that a HSE risk is not properly established and understood, they have the right and obligation to stop work. Notification should be made to the affected worker(s) and then to the supervisor or designee at the location where the activity or conditions exist.

B. Right to a Safe Workplace:

1. Any employee who reasonably believes that an activity or condition is unsafe is expected to stop work without fear of reprisal by management or coworkers and is entitled to have the safety concern addressed prior to participating in the work. It is management's responsibility to insure that the Company develops a culture where the employee can exercise their right to stop work at all times.

C. Stop Work Resolution:

1. No worksite activity will resume until the HSE risk issue has been addressed and resolved. Intervention and resolution will be coordinated through the appropriate supervisor. It is their responsibility to correct any issues that have resulted in an employee stopping work. The supervisor must involve the individuals who initiated the stop work in reaching mutual agreement on the resolution or proposed actions necessary, and resume work when safe to do so. Stop work interventions are documented and reviewed by management and accessed as to follow up, solutions, and improvement areas. It is important that follow-up is provided after an intervention has been initiated and closed to facilitate learning's and best practices to all employees.

III. TRAINING

Each employee will be orientated and trained in Stop Work Authority prior to initial job assignment. The Company shall insure that all employees understand the importance of the stop to work rule to help keep us safe and in a HSE risk free work environment. Training records will be retained to document and certify names of employees trained, date(s) of training, and subject of training.

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Centurion Power

HSE MANUAL

HSE 8

Ground Fault Circuit Interrupter GFCI Policy
Assured Equipment Grounding Conductor

Revision 0
6/1/2024

I. SCOPE

1. It is the policy of Centurion Power to establish and implement an assured equipment grounding conductor program on construction sites covering all cord sets, receptacles which are not a part of the permanent wiring of the building or structure, and equipment connected by cord and plug which are available for use or used by employees.
2. Supervisors are designated to implement the assured equipment grounding conductor program on their work site.
3. Supervisors will be responsible and accountable for the following:
    a. Each cord set, attachment cap, plug and receptacle of cord set and any equipment connected by cord and plug, except cord sets and receptacles which are fixed and not exposed to damage, shall be visually inspected before each day's use for external defects, such as deformed or missing pins, or insulation damage, and for indication of possible internal damage. Equipment found damaged or defective may not be used until repaired.
    b. Supervisors are responsible for tests on all cord sets, receptacles which are not a part of the permanent wiring of the building or structure, and cord and plug connected equipment repaired to be grounded. Tests shall be documented on the log for assured equipment grounding conductor program and shall be on the jobsite for inspection by Regulatory officials and any affected employee. Equipment that does not meet prescribed test shall not be put into service. The following tests shall be performed:
        i. All equipment grounding conductors shall be tested for continuity and shall be electrically continuous
        ii. Each receptacle and attachment cap or plug shall be tested for correct attachment of the equipment grounding conductor. The equipment grounding shall be connected to its terminal
4. A copy of this policy shall be at the jobsite for inspection and copy by Regulatory officials and any affected employee. A copy of the completed forms will be kept on each applicable jobsite for inspection purposes.

II. PLAN CONTENT

Equipment grounding conductors shall be installed and maintained in accordance with this procedure.

1. **Installation** - Equipment grounding conductors shall be installed as follows:
    a. All 120 volt, single phase, 15- and 20- ampere receptacles shall be of the grounding type and their contacts shall be grounded by connection to the equipment grounding conductor of the circuit supply the receptacle i accordance with the applicable requirements of the National Electrical Code.
    b. All 120 volt cord sets (extension cords) shall have an equipment grounding conductor which shall be connected to the grounding contacts of the connector(s) on each end of the cord.
    c. The exposed concurrent-carrying metal parts of the 120 volt cord and plug-connected tools and equipment that are likely to become energized shall be grounded in accordance with the applicable requirements of the National Electrical Code.

2. **Visual Inspection** - Employees shall be instructed to visually inspect receptacle, flexible cord sets (extension cords), except those that are fixed and not exposed to damage, and equipment connected by cord and plug before each day's use for external defects such as deformed or missing pins or insulation damage and for indication of possible internal damage. Where there is evidence of damage, the damaged item shall be taken out of service and tagged until tested and any required repairs have been made.
3. **Testing Ground** - All 120 volt, single phase, 15 and 20- ampere receptacles which are not a part of the permanent wiring of the building or structure, 1220 volt flexible cord sets, and 120 volt cord and plug connected equipment required to be grounded shall be tested as follows:
    a. All equipment grounding conductors shall be tested for continuity and shall be electrically continuous.
    b. Each receptacle and attachment cord or plug shall be tested or correct attachment of the equipment grounding conductor. The equipment grounding conductor shall be connected to its proper terminal.
4. **Testing Schedule** - All required tests shall be performed:
    a. Before first use
    b. Before equipment is returned to service following any repairs
    c. Before equipment is used after any incident which can be reasonably suspected to have caused damage (for example, when a cord set is run over)
    d. At intervals not to exceed three (3) months, except that cord sets and receptacle which are fixed and not exposed to damage shall be tested at intervals not exceeding six (6) months
5. **Test Records** - Test verification shall be by means of numeric or color coded marking tape ion the receptacle, cord set or equipment to identify that it has passed the test and to indicate the date (month or quarter) in accordance with section 5.0 Coding Scheme.
6. **Color Scheme** - Coding schemes for assured equipment grounding conductor test record. All cords, temporary wiring and portable equipment will be marked in accordance with the below color scheme.

Electrical Cord Color Coding Scheme		
Month/Quarter	**Quarter**	**Month**
January	**White**	**White**
February		**Yellow**
March		**Blue**
April	**Green**	**Green**
May		**Yellow**
June		**Blue**
July	**Red**	**Red**
August		**Yellow**
September		**Blue**
October	**Orange**	**Orange**
November		**Yellow**
December		**Blue**
Repair/Incident	**Brown**	**Brown**

III. References

CFR 1926.404

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Attachment A

Assured Equipment Grounding Conductor Inspection Log

Project Name				
Location				
Job Number				
ID of Equipment Tested	Date Tested	Action, if any	Reason A,B,C,D	Tested By (signature)

***REASON FOR TEST:**

A. BEFORE FIRST USE

B. BEFORE EQUIPMENT IS RETURNED TO SERVICE FOLLOWING ANY REPAIRS

C. BEFORE EQUIPMENT IS USED, AFTER ANY INCIDENT WHICH CAN BE REASONABLY SUSPECTED TO HAVE CAUSED DAMAGE.

D. AT INTERVALS NOT TO EXCEED THREE (3) MONTHS, EXCEPT THAT CORD SETS AND RECEPTACLES WHICH ARE FIXED AND NOT EXPOSED TO DAMAGE SHALL BE TESTED AT INTERVALS NOT EXCEEDING SIX (6) MONTHS.

Authorized Signature: _____ Date: _____.

Centurion Power

HSE MANUAL

HSE 9

Bloodborne Pathogens Policy

Revision 0
6/1/2024

I. SCOPE

1. Centurion Power is committed to providing a safe and healthy work environment for our employees. It is the policy of Centurion Power to ensure the safety and health of our employees and prohibiting the spread of Bloodborne Pathogens. Therefore, the following Bloodborne Pathogens Safety Programs has been adopted. In the event an employee is exposed to Bloodborne Pathogens, all measures within this program shall be provided to eliminate the spread of disease.

2. This policy for the prevention of hazardous employee exposure to Bloodborne Pathogens. This is considered Centurion Power Exposure Control Plan. Access to a copy of the exposure control plan shall be provided in a reasonable time, place, and manner.

3. Centurion Power has implemented this plan to ensure that no employee is exposed to hazardous Bloodborne Pathogens in the workplace. The Safety Director is the Company administrator who has the overall supervisory responsibility for the effectiveness of this program and for maintaining medical and training records.

II. GENERAL POLICY & PROCEDURES

1. When employees are assigned to a position that puts them in potential contact with bloodborne pathogens they will be trained in exposure awareness and prevention techniques for bloodborne pathogens. These employees will receive refresher training annually, or when changing job conditions or assignments warrant it. Training records will include date of training, training content, attendance records including job title, and will be kept on file at the office for a minimum of 3 years.

2. Centurion Power will establish and maintain an accurate record for each employee with occupational exposure. Training records will include the dates and contents of training, and the names and job titles of persons attending. Training records will be maintained for 3 years from the date of training and medical records will be maintained for at least the duration of employment plus 30 years.

3. Centurion Power will ensure that all records required by this policy will be made available upon request of employees. Medical records will have the written consent of the employee before being released.

4. Centurion Power will make available the Hepatitis B vaccine to all employees that have occupational exposure through assignment at no cost to the employee(s).

5. Employees with occupational exposure for the construction industry are limited to job duties that require workers to administer first aid and/or CPR when necessary. Employees trained in first aid and CPR and designated as First Aid Responders are considered at risk of occupational exposure due to the nature of these duties (e.g., assisting bleeding victims, resuscitation). Occupational exposure is defined as reasonably anticipated contact with blood or other potentially infectious materials that may result from the performance of an employee‘s duties.

6. The exposure determination will be made without regard to the use of personal protective equipment. All employees who, as a result of performing their job duties, must engage in activities where exposure to blood or other potentially infectious materials is reasonably anticipated are

considered to have occupational exposure to bloodborne pathogen. Employees will take necessary precautions to avoid direct contact with body fluids.

7. Personal Protective equipment will be available at all times to prevent exposure to infectious material for employees required to handle potentially hazardous material, perform first aid procedures, or to perform routine duties which may bring an employee into contact with potentially infectious material.

8. Employees in job classifications in which they may possibly have occupational exposure to bloodborne pathogens, or material possibly containing bloodborne pathogens, will be given the opportunity to participate in the hepatitis B vaccine program.

9. Universal precautions will be observed. Under circumstances in which differentiation between body fluids is difficult or impossible, all body fluids will be considered potentially infectious.

10. The term —universal precautions refers to a method of bloodborne disease control that requires all human blood and other potentially infectious materials to be treated as if known to be infectious HIV, HBV or other bloodborne pathogens.

11. If provision of handwashing facilities is not feasible, Centurion Power will provide either an appropriate antiseptic hand cleanser in conjunction with cloth/paper towels or antiseptic towelettes. All employees are allowed access to proper restroom and sanitary facilities. Hand washing and disinfecting supplies are always available to employees either at restroom facilities or upon request.

12. Blood-soaked bandages or other potentially infectious materials from the accident site will be put in properly marked, leak-proof bags for handling.

13. Proper disposal containers for potentially infectious material are available as needed. Any such containers will be properly marked for biohazards and disposed of properly.

14. All equipment or environmental surfaces will be cleaned and decontaminated after contact with blood or other infectious materials.

15. Any injury to personnel must be reported immediately to a supervisor. Any unauthorized personnel will be restricted from the area where the injury occurred until it is determined that no threat of infection is present, or until properly trained personnel can dispose of any infectious material.

16. Any exposed sharp edges or devices which may cause laceration or puncture on machines, tools, or equipment will be eliminated or protected to prevent injury to personnel. All machine guards will be inspected daily to ensure that they are in place and secure to prevent injury to personnel and the spread of bloodborne pathogens.

17. Engineering and work practice controls will be used to eliminate or minimize employee exposure. Company assigned first aid responders will be trained in universal precautions and proper PPE use when giving first aid. Engineering controls will be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

18. PPE, such as gloves and gowns, is provided to our employees at no cost to them when the possibility of occupational exposure is present. Appropriate PPE in the proper sizes will be readily accessible. PPE will be cleaned laundered, and properly disposed. PPE will be repaired or replaced as needed to

maintain its effectiveness. PPE will be used unless, under rare circumstances, the employee(s) temporarily declined to use PPE.

19. Training in the use of the appropriate PPE for specific tasks or procedures is provided by Centurion Power PPE may be obtained by contacting the Safety Director, who is responsible for ensuring that PPE is available.

20. All employees using PPE must observe the following precautions:
    a. Wash hands as soon as feasible after removing gloves or other PPE.
    b. Remove PPE after it becomes contaminated and before leaving the work area.
    c. Contaminated PPE must be properly handled or disposed of in properly marked, leak-proof bags. When PPE is to be decontaminated, proper handling precautions and procedures will be observed during this process.
    d. Wear appropriate gloves when it is reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured or contaminated, or if their ability to function as a barrier is compromised.

21. Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.

22. Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

23. Centurion Power will ensure that a copy of this Exposure Control Plan is accessible to employees in accordance with §1910.1020 (e).Administration of Program

24. Accurate medical records for each employee with occupational exposure must be maintained for at least the duration of employment plus 30 years.

25. Training records shall be maintained for 3 years from the date of training.

III. SPECIFIC RESPONSIBILITIES

1. Centurion Power Safety Department

IV. REFERENCES

29 CFR 1910. 95,

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Centurion Power

HSE MANUAL

HSE 10

Heat Illness Prevention Policy

Revision 0
6/1/2024

I. SCOPE

A. Centurion Power is committed to providing a safe and healthy work environment for our employees. Centurion Power employees who work in outdoor places or who work in other environments where environmental risk factors for heat illness are present are at risk for developing heat related illnesses if they do not protect themselves appropriately. The objective of this program is to reduce the potential for heat illnesses by making employees aware of heat illnesses, ways to prevent illness, and actions to take if symptoms occur.

B. A copy of this program will be made available to all employees and their designated representatives.

II. DEFINITIONS

A. **Acclimatization** means the temporary, gradual adaptation of the body to work in the heat when a person is exposed to it. Usual acclimatization time while working in the heat for at least two (2) hours per day ranges from four (4) to 14 days. Acclimation procedures include close observation of all employees during a heat wave – defined as at least 80 degree Fahrenheit. New employees must be closely observed for their first two weeks on the job.

B. **Emergency response** procedures include effective communication, response to signs and symptoms of heat illness, and procedures for contacting emergency responders to help stricken employees.

C. **Environmental risk factors for heat illness** mean the working conditions that create the possibility for a heat illness to occur. Risk factors include air temperature, air movement, relative humidity, workload, work severity, work duration, radiant heat, conductive heat, and personal protective equipment (PPE) worn by an employee.

D. **Heat illness** means a serious medical illness, which results from the body's inability to cope with a heat load. Heat illnesses include heat cramps, heat exhaustion, heat stroke and heat syncope (fainting).

E. **High-heat procedures** are required for locations that Centurion Power is working in when temperatures reach 95 degrees Fahrenheit or above. These procedures include observing and being in constant contact with employees, closely supervising new employees and reminding all workers to drink water. The high heat procedures shall ensure "effective" observation and monitoring, including a mandatory buddy system and regular communication with employees working by themselves. During high heat, employees must be provided with a minimum 10-minute cool-down period every two hours. The industries specified under this modification are: 1) Agriculture, 2) Construction, 3) Landscaping, 4) Oil and gas extraction, 5) Transportation or delivery of agricultural products, construction material or other heavy materials.

F. **Personal risk factors for heat illness** includes factors such as an employee's age, level of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, overall health, and use of prescription medications which may alter the body's ability to retain water or otherwise affect the body's physiological response to heat. (Centurion Power shall not request any of the above personal information from an employee).

G. **Preventative recovery period** means a period of time for an employee to recover from a heat illness or signs of a heat illness. The amount of time for a recovery period shall be no shorter than five minutes and shall be taken in a shaded area. Employees taking a preventative cool-down rest must be monitored for symptoms of heat illness, encouraged to remain in the shade, and not ordered back to work until symptoms are gone. Employees with symptoms must be provided appropriate first aid or emergency response.

H. **Shade** means the blockage of direct sunlight. Sufficient blockage is when an object does not cast a shadow in the area of the blockage. Shade is not acceptable if heat in the shaded area prevents the body from cooling. Shade shall be open to the air or otherwise provided with ventilation and/or climate controlled. Access to shade shall be made available at all times.

I. **Shade requirements** must be adequate to accommodate all employees on recovery or rest periods, and those onsite taking meal periods when temperatures reach 80 degrees, and located as close as practicable to the areas where employees are working. When temperatures are below 80 degrees, employers shall provide timely access to shade upon an employee's request.

III. RESPONSIBILITY

A. Health and Safety Department:

1. Will assist Project Managers and Supervisors with developing a site written program which complies with the requirements of this policy
2. Assisting with providing training tools to all potential employees who may be impacted and their supervisors on the risks and prevention of heat illness, including how to recognize symptoms and respond when they appear.

B. Project Managers and Supervisors are responsible for:

1. Identifying all employees who are required to work outdoors or in other environments where potential heat illness could occur and identify the supervisor of the employee.
2. Assuring that adequate water, shade, and necessary rest breaks are available when the environmental risk factors for heat stress are present.
3. Ensuring that all affected employees are trained on heat illness prevention
4. Ensuring that the requirements in this document are followed

C. Affected employees are responsible for:

1. Complying with the provisions of the Heat Illness Prevention Program, as described in this document and in the training sessions they attend.
2. Ensuring that they have the appropriate amount of drinking water available at all times when the environmental risk factors for heat illness are present.
3. Ensuring they have access to a shaded area to prevent or recover from heat related symptoms.
4. Reporting heat related illness symptoms to the supervisor.

IV. PROCEDURES

A. **Procedures for Provision of Water**

1. Employees shall have access to potable drinking water that is fresh, pure, suitably cool, and provided to employees free of charge. The water shall be located as close as practicable to the areas where employees are working. Where drinking water is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift to provide one quart per employee per hour for drinking for the entire shift.
2. At the beginning of each shift, all employees who work outside when environmental risk factors for heat illness are present shall have sufficient quantities and immediate access to at least one (1) quart of potable drinking water per hour for the entire shift (at least two (2) gallons of potable water per person per eight (8)-hour shift).
3. Smaller quantities may be provided if the Centurion Power has an effective procedure for replenishment that meets the above quantity and time requirements.
4. Water must be fresh, pure, suitably cool and located as close as practicable to where employees are working, with exceptions made only when infeasibility can be demonstrated by the employer.
5. The importance of frequent drinking water shall be conveyed and encouraged it will also be described in the Heat Illness Prevention Training.

B. **Procedures for Access to Shade**

1. Shade shall be present when the temperature exceeds 80 degrees Fahrenheit. When the outdoor temperature in the work area exceeds 80 degrees Fahrenheit, the employer shall have and maintain one or more areas with shade at all times while employees are present that are either open to the air or provided with ventilation or cooling. Shade structures must be erected if there are no other sources of shade readily available.
2. Even when the temperature does not exceed 80 degrees Fahrenheit, shade or timely access to shade must be provided upon request. When shade from a nearby site is not readily available or accessible, shade structures will be opened and placed as close as practical to the employees. ***Note:*** *The interior of a vehicle may not be used to provide shade unless the vehicle is air conditioned and the air conditioner is on.*
3. Access to shade shall be made available at all times to any employee experiencing heat illness, symptoms of heat illness, or believing a preventative recovery period is needed. Employees with symptoms must be provided appropriate first aid or emergency response.
4. The preventative recovery period shall be at least five (5) minutes. Employees taking a preventative cool down rest must be monitored for symptoms of heat illness, encouraged to remain in the shade, and not ordered back to work until symptoms are gone.
5. Water shall be made available in the shade/preventative recovery period area.
6. When temperatures equal or exceed 80 degrees Fahrenheit or during a heat wave, adequate shade must be provided to accommodate all employees on recovery or rest periods, and those onsite taking meal periods.

C. **Procedures for Monitoring the Weather**

1. To identify if environmental risk factors are present, the Supervisor shall obtain temperature and humidity measurements for the work areas, either by direct measurements or by weather forecasts that are adjusted to match worksite conditions.
2. To evaluate if an environmental risk factor is present, Supervision shall obtain the Heat Index, calculated by the National Weather Service, to rate the risk of heat illness depending on air temperature and humidity. The use of the Heat Index Hydration Chart has been put together to assist in making work rest decisions. Centurion Power shall assume there is a significant risk of heat illness when the Heat Index for an employee working in the sun is 80 degrees Fahrenheit or above, and 90 degrees Fahrenheit or above when employees are working in the shade.
3. High-heat procedures shall include, but are not limited to:
    a) Effective communication by voice, observation or electronic means
    b) Observation of employees for alertness and signs/symptoms of heat illness
    c) Designating one or more employees on each worksite as authorized to call for emergency medical services
    d) Reminding employees to drink water throughout the shift
    e) Pre-shift meetings before beginning work to review the high heat procedures, encourage drinking water, and remind employees of their right to take a cool-down rest when necessary.
4. To control and reduce the exposure to environmental risk factors, Centurion Power shall utilize the following control measures (mark all that apply):
    a) Provide shade for work areas
    b) Schedule outdoor and/or vigorous work in the cooler hours of the day
    c) Schedule more breaks during the day
    d) Provide misters or other cooling devices

D. **Identifying, Evaluating and Controlling Personal Risk Factors for Heat Illness**

1. Centurion Power shall train employees on the factors that can affect their vulnerability to heat illness. These factors include an employee's age, level of acclimatization, health, water consumption, alcohol consumption, caffeine consumption, overall health, and use of prescription medications that may alter the body's ability to retain water or otherwise affect its physiological response to heat. Centurion Power shall convey the importance of acclimatization and shall take steps to aid employees in becoming acclimatized.

Heat Index Hydration Chart

Important Consideration: NOAA devised the heat index values for shaded conditions and light winds. Full sunshine can increase heat index values by up to 15° F. Strenuous work and the use of heavy specialized protective clothing also have an added effect.		**EASY WORK**		**MODERATE WORK**		**HARD WORK**	
		Walking on hard surface at 2.5 mph < 30 lb. load		Walking on loose sand at 2.5mph with load Walking hard surface at 3.5mph < 40lb load.		Walking on hard surface at 3.5mph > 40lb load Walking loose sand at 2.5mph with load.	
Heat Category	**WBGT** Index F°	Work/ Rest (min)	Water Intake (qt/hr)	Work/Rest (min)	Water Intake (qt/hr)	Work/Rest (min)	Water Intake (qt/hr)
1	**<80°**	NL	½	NL	¾	40/20 min	¾
2 (Green) **Low Caution**	**81°-90°**	NL	½	50/10 min	¾	30/30 min	1
	Basic heat safety and planning. Provide adequate amounts of drinking water in convenient, visible locations close to the work area.						
3 (Yellow) **Moderate**	**91°-103°**	NL	¾	40/20 min	¾	30/30 min	1
	Implement precautions and heighten awareness. Remind workers to drink water often (about 4 cups/hour)**						
4 (Red) **High**	**103°-115°**	NL	¾	30/30 min	¾	20/40 min	1
	Additional precautions to protect workers. Alert workers of high risk conditions. Actively encourage workers to drink plenty of water (about 4 cups/hour)**						
5 (Black) **Extreme**	**>115°**	50/10 min	1	20/40 min	1	10/50 min	1
	NO WORK						

E. **Reporting Symptoms or Signs of Heat Illness to Supervision**

1. Employees exhibiting signs or symptoms of heat illness, or who observe a co-worker with signs or symptoms, shall report these symptoms to the supervisor or foreman immediately.
2. It shall be the responsibility of the supervisor or foreman to respond to all reports and/or observations of heat illness symptoms and signs.
3. When a sick employee is unable to communicate, it shall be the responsibility of onsite supervision to contact emergency services when required, and to provide accurate and precise directions to the employee's location. This individual shall be immediately available to perform this function.
4. Centurion Power shall account for the whereabouts of all employees at appropriate intervals during and at the end of the work shift. This procedure shall be followed whenever the outdoor work environment creates a heat hazard that could result in the collapse of an employee due to heat illness. Communication between the Supervisor and their crew is of the utmost importance.

V. EMPLOYEE INFORMATION AND TRAINING

A. Training shall be administered to all employees and their supervisors who fall under the scope of this policy. Centurion Power shall ensure the effectiveness of the training by one of the following methods:

1. Tailgate meetings before a shift begins
2. Test employees/supervisors after training
3. Conduct the training on a regular basis

B. Supervisory and non-supervisory employees shall be trained on:

1. Environmental and personal risk factors for heat illness
2. Centurion Power procedures for identifying, evaluating and controlling the exposure to environmental and personal risk factors for heat illness
3. Importance of frequent consumption of small amounts of water under extreme conditions
4. Acclimatization and its importance
5. Types of heat illness and their symptoms, signs, and differences
6. Procedure for immediately reporting the signs and symptoms of heat illness in themselves or in a co-worker to their employer, and its importance
7. Procedures for Centurion Power to respond to symptoms of heat illness, which shall include how emergency medical services will be provided, if needed
8. Procedures for contacting emergency medical services and transporting employees to a readily accessible location for emergency medical services to reach them
9. Procedures on and how to provide clear and precise directions to emergency medical services

C. Supervisors will be trained prior to assignment as a supervisor. Supervisors shall be trained on:

1. All information included in the above section
2. Procedures a supervisor shall follow when implementing this Heat Illness Prevention Plan

3. The procedures a supervisor shall follow when an employee exhibits symptoms of a possible heat illness, which includes emergency response procedures

VI. PROGRAM REVIEW

A. Health & Safety will conduct a periodic program review at least once every three (3) years.

VII. REFERENCES

29 CFR 1910.1200
OSHA and Cal/OSHA Hazard Communication Standard, CFR 1910.1200 and CCR Title 8, §5194)

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6/1/2024	6/1/2024	0	Create Document	Tony Asciutto

Centurion Power

HSE MANUAL

HSE 11

Electrical Safety Awareness

Revision 0
6/1/2024

I. SCOPE

This section sets forth requirements for electrical safety. It specifically addresses working in restricted areas; working near exposed energized overhead lines or parts; operating equipment near radio and microwave transmission towers; working on electrical equipment and systems; personal protective grounding; temporary wiring; disconnect and overcurrent protection; ground-fault protection; hazardous locations; wet locations; and battery charging.

II. COVERED TASKS

1. **General Electrical Safety Requirements**

   All electrical work practices must comply with applicable sections of the Occupational Safety and Health Administration (OSHA), National Fire Protection Association (NFPA), National Electrical Code, National Electrical Safety Code, and State adopted electrical codes.

   a. **Approval Required.** Use only electrical wire, conduit, apparatus, and equipment for the specific application that is approved or listed by Underwriters Laboratories (UL), or Factory Mutual Corporation (FMC). Install and use listed, labeled, or certified equipment according to the instructions included in the listing, labeling, or certification.

   b. **Qualified Persons.** Only qualified personnel familiar with code requirements, safety standards, and experienced in the type work may work on electrical circuits and equipment. NFPA 70E and OSHA 29 CFR 1910.269 contain references for training requirements.

   c. **Safety Requirements before Performing Electrical Work.** Centurion Power will determine, by inquiry, direct observation, or instruments, the location of any part of an energized electric power circuit, exposed or concealed. If the work may cause any person, tool, or machine to penetrate the boundaries set forth in table 5.1, de-energize the circuit(s) and ground them, as appropriate. Additionally, all of the following must be required:

   d. **Underground Lines.** Protect all underground lines with surface signs and a longitudinal warning tape buried 12 inches to 18 inches above the lines. Do not perform drilling, auguring, or material excavating operation within six (6) feet of underground lines unless the lines have been de-energized.

   e. **Job Briefing.** The supervisor or designee must conduct a job briefing with affected workers. The supervisor or designee must hold additional job briefings if significant changes occur during the course of work. The briefing must cover the following:

      i) **Job Safety Analysis (JSA).** Identify all hazards associated with the job in a written JHA and discuss them.

      ii) **Nonelectrical Hazards**. Identify, in a written JSA, hazards not associated with the electrical work but expected to be encountered and discuss them.

      iii) **Personal Protective Equipment (PPE).** Provide and use the appropriate PPE needed to accomplish the job safely. Use flash- protection clothing in accordance with NFPA 70E if the job requires operating, racking, circuit breakers with the doors open or, working within reaching distances of exposed energized parts. Employees working on energized lines and

equipment rated at 440 volts or greater must use rubber gloves, hard hats, safety boots, and other approved protective equipment or hot-line tools that meet ASTM standards.

f. **Other Procedures**. Perform procedures related to electrical work in accordance with the following:

i) HSE 14, Lock Out Tag Out Policy

ii) HSE 17, Personal Protective Equipment

III. GENERAL SAFE PRACTICES

1. Safety-related work practices shall be employed to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts, when work is performed near or on equipment or circuits which are or may be energized.

2. If the exposed live parts are not deenergized, other safety-related work practices shall be used to protect employees who may be exposed to the electrical hazards involved. Such work practices shall protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object.

3. All electrical equipment and systems shall be treated as energized until tested or otherwise proven to be de-energized.

4. While any employee is exposed to contact with parts of fixed electric equipment or circuits which have been deenergized, the circuits energizing the parts shall be locked out or tagged or both.

5. Centurion Power will follow it written LOTO Control of Hazardous Energy policy HSE 14, when performing lock out, tag out, try out procedures.

IV. DEENERGIZING EQUIPMENT

1. Safe procedures for deenergizing circuits and equipment shall be determined before circuits or equipment is deenergized.

2. The circuits and equipment to be worked on shall be disconnected from all electric energy sources.
   a. Control circuit devices, such as push buttons, selector switches, and interlocks, may not be used as the sole means for deenergizing circuits or equipment.
   b. Interlocks for electric equipment may not be used as a substitute for lockout and tagging procedures.

3. Stored electric energy which might endanger personnel shall be released. Capacitors shall be discharged, and high capacitance elements shall be short-circuited and grounded, if the stored electric energy might endanger personnel.
   a. If the capacitors or associated equipment are handled in meeting this requirement, they shall be treated as energized.

4. Stored non-electrical energy in devices that could reenergize electric circuit parts shall be blocked or relieved to the extent that the circuit parts could not be accidentally energized by the device.

5. "Application of locks and tags." A lock and a tag shall be placed on each disconnecting means used to deenergize circuits and equipment on which work is to be performed. The lock shall be attached so as to prevent persons from operating the disconnecting means unless they resort to undue force or the use of tools.

6. Each tag shall contain a statement prohibiting unauthorized operation of the disconnecting means and removal of the tag.

7. Verification of deenergized condition. The requirements of this paragraph shall be met before any circuits or equipment can be considered and worked as deenergized.

8. A qualified person shall operate the equipment operating controls or otherwise verify that the equipment cannot be restarted.
    a. A qualified person shall use test equipment to test the circuit elements and electrical parts of equipment to which employees will be exposed and shall verify that the circuit elements and equipment parts are deenergized.
    b. The test shall also determine if any energized condition exists as a result of inadvertently induced voltage or unrelated voltage back feed even though specific parts of the circuit have been deenergized and presumed to be safe.
    c. If the circuit to be tested is over 600 volts, nominal, the test equipment shall be checked for proper operation immediately after this test.

9. Reenergizing equipment- These requirements shall be met, in the order given, before circuits or equipment are reenergized, even temporarily.
    a. A qualified person shall conduct tests and visual inspections, as necessary, to verify that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed, so that the circuits and equipment can be safely energized.
    b. Employees exposed to the hazards associated with reenergizing the circuit or equipment shall be warned to stay clear of circuits and equipment.

    c. Each lock and tag shall be removed by the employee who applied it or under his or her direct supervision. However, if this employee is absent from the workplace, then the lock or tag may be removed by a qualified person designated to perform this task provided that:
        i. The employer ensures that the employee who applied the lock or tag is not available at the workplace, and
        ii. The employer ensures that the employee is aware that the lock or tag has been removed before he or she resumes work at that workplace.
        iii. There shall be a visual determination that all employees are clear of the circuits and equipment.

V. RESTRICTED AREAS

1. **General.** Provide effective barriers or other means to ensure that people do not use areas with electrical circuits or equipment as passageways when energized lines or equipment are exposed.

Effectively guard live parts of wiring or equipment to protect persons or objects from harmful contact. Use special tools insulated for the voltage when installing or removing fuses with one or both terminals energized.

2. **High-Voltage Equipment (over 600 volts nominal).** Isolate exposed high-voltage equipment, such as transformer banks, open switches, and similar equipment with exposed energized parts to prevent unauthorized access. Isolation must consist of locked rooms, fences or screened enclosures, walls, partitions, or elevated locations. Keep entrances to isolated areas locked when not under constant observation. Post **DANGER—HIGH VOLTAGE** warning signs at entrances to these areas. Properly ground conductive components, fences, guardrails, screens, partitions, walls, and equipment frames and enclosures.

3. **Temporary Fences.** When extending a fence or removing it for work on high voltage equipment, erect a temporary fence of comparable construction and protection. Electrically bond the temporary fence to the existing fence. If the fence is more than 40 feet long, bond posts to the ground mat at no more than 40-foot intervals. Bond posts at each side of gates or openings to the ground mat/grid and install a bonding jumper across all gate hinges. Bond all corner posts to the ground mat.

4. **Perimeter Markings.** Use approved perimeter markings to isolate restricted areas from designated work areas and entryways. Erect them before work begins and maintain them for the duration of work. Approved perimeter marking must be:

   a. **Barrier Tape**. Install red barrier tape printed with the words "**DANGER—HIGH VOLTAGE**" around the perimeter of the work area and access way approximately 42 inches above the floor or work surface.

   b. **Synthetic Rope Barrier**. Install a barrier of yellow or orange synthetic rope 36 to 45 inches from the floor with standard danger signs of non-conductive material attached at 10-foot intervals containing the words "**DANGER–HIGH VOLTAGE**."

VI. WORKING NEAR EXPOSED ENERGIZED OVERHEAD LINES OR PARTS

1. **General** - For troubleshooting and testing purposes, only qualified persons using proper test equipment and personal protective equipment must adhere to the boundaries shown in figure 4.1 and specified in table 4.1. For adjusting, tightening, calibrating or any other work, the circuits must be de- energized, or employees must use voltage-rated gloves and voltage-rated insulated tools.

   a. **Low Voltage Testing -** For low voltage troubleshooting and testing purposes only, i.e., **fewer than 480 volts**, a qualified person may penetrate the prohibited approach

boundary shown in table 4.1, column 5, with test instrument probes, leads, CT's, etc. The qualified person must wear Class 00 (500 volt-rated) gloves.

b. **Unqualified Person Restrictions** - When a person without electrical training works on the ground or in an elevated position near overhead lines or any other exposed energized parts, supervisors and employees must ensure that the unqualified person and the longest conductive object they might contact or handle, can never come closer to any energized line or part than those distances listed in table 4.1, column 2, for energized lines or column 3 for other exposed live parts.

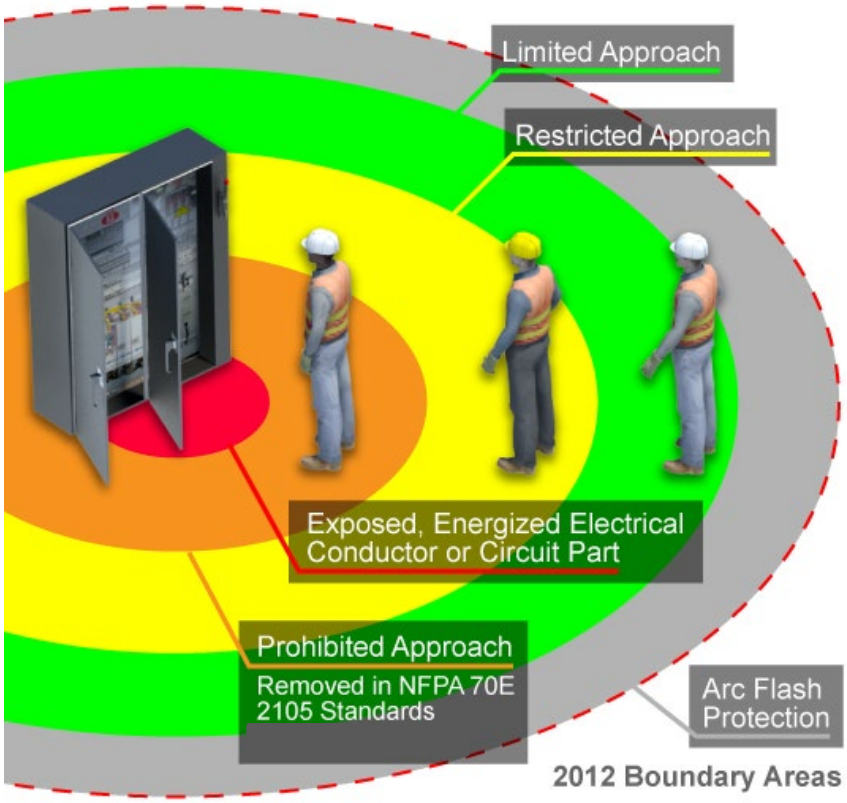

Figure 4.1 – Boundaries

Table 4.1.—Approach boundaries to exposed energized conductors/parts for qualified employees (All dimensions are distances from energized conductor/part to employee)

1	2		3		4		5	
Nominal voltage phase to phase, or single phase	Limited approach boundaries: Exposed moveable conductor		Limited approach boundaries: Exposed fixed circuit part		Restricted approach boundary includes inadvertent movement		Prohibited approach boundary	
0 to 50	not specified		not specified		not specified		not specified	
51 to 300	10-ft	0-in	3-ft	6-in	avoid contact		avoid contact	
301 to 750	10-ft	0-in	3-ft	6-in	1-ft	0-in	0-ft	1-in
751 to 15 kV	10-ft	0-in	5-ft	0-in	2-ft	2-in	0-ft	7-in
15.1 kV to 36 kV	10-ft	0-in	6-ft	0-in	2-ft	7-in	0-ft	10-in
36.1 kV to 46 kV	10-ft	0-in	8-ft	0-in	2-ft	9-in	1-ft	5-in
46.1 kV to 72.5 kV	10-ft	0-in	8-ft	0-in	3-ft	3-in	2-ft	1-in
72.6 kV to 121 kV	10-ft	8-in	8-ft	0-in	3-ft	2-in	2-ft	8-in
138 kV to 145 kV	11-ft	0-in	10-ft	0-in	3-ft	7-in	3-ft	1-in
161 kV to 169 kV	11-ft	8-in	11-ft	8-in	4-ft	0-in	3-ft	6-in
230 kV to 242 kV	13-ft	0-in	13-ft	0-in	5-ft	3-in	4-ft	9-in
345 kV to 362 kV	15-ft	4-in	15-ft	4-in	8-ft	6-in	8-ft	0-in
500 kV to 550 kV	19-ft	0-in	19-ft	0-in	11-ft	3-in	10-ft	9-in
765 kV to 800 kV	23-ft	9-in	23-ft	9-in	14-ft	11-in	14-ft	5-in

Notes: *This table is taken from NFPA 70E table 2-1.3.4 and OSHA 29 CFR,1910.269 table R6*.

c. **Limited Approach Boundaries -** A shock protection boundary to be crossed only by qualified persons (at a distance from a live part). Unqualified persons must not cross this boundary unless accompanied by a qualified person.

d. **Restricted Approach Boundary -** A shock protection boundary to be crossed only by qualified persons (at a distance from a live part). The boundary's proximity to a shock hazard requires the use of shock protection techniques and equipment when crossed.

e. **Prohibited Approach Boundary -** A shock protection boundary to be crossed only by qualified persons (at a distance from a live part). When crossed by a body part or object, this boundary requires the same protection as if direct contact is made with a live part (i.e., requires voltage rated tools and voltage rated gloves and, in some cases, other voltage rated clothing).

2. **Equipment Transit Clearances** - A signal or flag person must guide cranes, cherry pickers, high lifts, and other equipment in transit near exposed energized lines or parts at all times. Do not move any equipment or machinery under energized overhead high-voltage lines or near exposed energized parts, unless clearances listed in table 4.2 are maintained. Unload and lower any boom or mast to transport position. Ground the equipment while it is being transported. Two grounds must be leap-frogged as the vehicle is moved or the vehicles must be treated as energized.

3. **Applied Loads** - Mechanical equipment used to lift or move lines or other material shall be used within its maximum load rating and other design limitations for the conditions under which the work is being performed

Table 4.2 – Equipment In Transit Clearances	
Up to 50 kV	4 FT
50 kV up to and including 345 kV	10 FT
Over 345 kV up to 750 kV	16 FT

4. **Sign Posting** - Post all crossings where equipment will be moved under energized high-voltage line(s) with appropriate signs. Place the signs 50 feet from and on both sides of the line(s). They must be large enough to be easily read from moving equipment. The sign must include the following information:
    a. Warning of the high-voltage line
    b. Line voltage
    c. Maximum height of equipment that may pass under the line
    d. Determine the maximum height of the equipment by subtracting the clearance distance shown in table 4.2 from the actual line to ground distance during maximum sag conditions.
5. **Equipment Operation Near Energized Lines** - Prohibit equipment from coming any closer to overhead high-voltage lines or exposed energized parts than distances shown in table 4.3, unless both subparagraphs a. and b. below are satisfied, or subparagraph c. below is satisfied.
    a. Before beginning work, place a clearance, ground and de-energize the line or exposed energized parts, and implement hazardous energy control procedures to prevent re-energization.
    b. Equipment does not have the capability of coming within distances shown in table 4.3.
    c. In addition to the clearances in table 4.3, effectively ground all equipment with booms or extensions above cab level while it is operating in a substation, switchyard, or on a transformer deck, or any other location near high voltage energized lines/parts.

Table 4.3 - Equipment Operation Near Energized Lines Table of minimum clearances (FT) for nominal system voltages (kV)	
kV	**FT**
50 (or less)	10
69	11
115	12
230	16

500	25

Note: Table 4.3 shows only common reclamation voltages and rounds them up to the nearest foot. For other voltages, use the 10-foot minimum and add 4 inches for every 10 kilovolts over 50 kilovolts. For example, 60 kilovolts would be 10 feet plus 4 inches; rounding up to the nearest foot would require an 11-foot clearance. Always round up because the clearance is usually only an estimate. It is difficult, if not impossible, to accurately measure the actual distance unless you de-energize the line and/or equipment.

5. **Mechanical equipment Inspection-** The critical safety components of mechanical elevating and rotating equipment shall receive a thorough visual inspection before use on each shift. Critical safety components of mechanical elevating and rotating equipment are components for which failure would result in free fall or free rotation of the boom.

6. **Placard Posting in Equipment Cabs** - Post a placard of minimum clearances (table 5.3) in the cab of all cranes, cherry pickers, shovels, backhoes, and any other equipment with booms or extensions that could possibly contact high-voltage lines. Tables posted in machines must be of substantial material and suitable for the environment.

7. **Operations near energized lines or equipment-** Each employee shall be protected from hazards that might arise from equipment contact with the energized lines. The measures used shall ensure that employees will not be exposed to hazardous differences in potential. The company should use the best available ground to minimize the time the lines or electric equipment remain energized, bond mechanical equipment together to minimize potential differences, provide ground mats to extend areas of equipotential, and/or employ insulating protective equipment or barricades to guard against any remaining hazardous electrical potential differences.

V. OPERATING EQUIPMENT NEAR RADIO AND MICROWAVE TRANSMISSION TOWERS

1. **General** - Because of high frequency, low power output, and point-to- point transmissions, microwave transmissions do not present an induced charge hazard. However, many microwave towers are mounted on VHF radio transmission antennas. Therefore, the following safety precautions apply to all transmission towers. Vehicles will rarely need to be grounded at transmission towers. Tires contain carbon compounds and are conductive or semi conductive and static charges will bleed off through tires and/or out- riggers. However, voltage could build up if all tires were insulated from the earth by dry rip-rap or other insulation.

2. **Requirement** - Shut down the transmitter or ground and test the equipment to determine if a hazard exists before working near any transmission tower where an electrical charge may be induced in the equipment or materials being handled. To conduct a test, connect an insulated wire to the vehicle and touch it to the tower base. If you see or hear the spark, you must ground the vehicle.

3. **Grounding Mobile Equipment Near Transmission Towers** - If needed, ground the equipment to dissipate static electrical charge. On equipment with a rotating boom, attach a ground wire to the structure supporting the boom. Place and remove ground wires using hot-sticks or voltage-rated gloves. Attach the ground connection first (if possible, to the tower ground), then attach the other end to the equipment. These ground wires do not have to be sized to carry fault current. They need only to carry low level current to bleed off static voltage charges induced on the vehicle or lifted materials. Any convenient wire size that will mechanically withstand the service will be

sufficient. A smaller conductor would carry the current, but an insulated #2 copper conductor is recommended for mechanical strength.

4. **Material Ground Wire** - Also, attach a ground wire to conductive materials handled by hoisting equipment. Attach the ground connection first, and then attach the other end on the materials. Alternatively, provide a ground jumper from the load to the required grounding conductor installed on the structure.

VI. WORKING ON ELECTRICAL EQUIPMENT AND SYSTEMS

1. **General** - Electrical installations must comply with the applicable provisions of the current editions of the National Electrical Safety Code, National Electrical Code, OSHA Regulations, and the Reclamation Safety and Health Standards. The Underwriters Laboratories (ul), Factory Mutual Laboratories (FMC), or other nationally recognized testing laboratory must approve or list electrical wire, conduit, apparatus, power tools and equipment, for the specific application. This approval/listing must appear on each piece of equipment or tool as part of the "marking or labeling" required below.
2. **Marking or Labeling** - Do not use electrical equipment unless the manufacturer's name, trademark, and other descriptive marking by which the manufacturer may be identified, is located on the equipment. Markings must also provide voltage, current, wattage, approvals/listings, and ratings as required by the edition of the National Electric Code in effect at the time of purchase. Markings must be sufficiently durability to withstand the environment.
3. **Working Space**

   a. Figure 6.2 and Table 6.4 provide access and working space distances around electrical equipment and enclosures, e.g., panel boards, motor controls, disconnects, etc., to permit ready and safe operation and maintenance. Keep working space clear at all times.

   b. Provide a working space of at least 30 inches horizontally where rear or side access is required to work on de-energized parts of enclosed equipment (see figure 6.3).

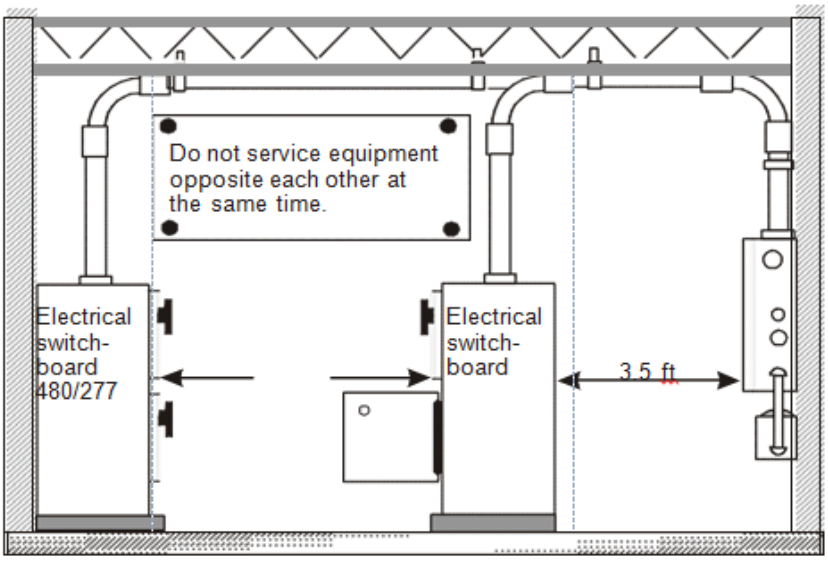

Figure 6.2 – Access and working space requirements around enclosures and equipment

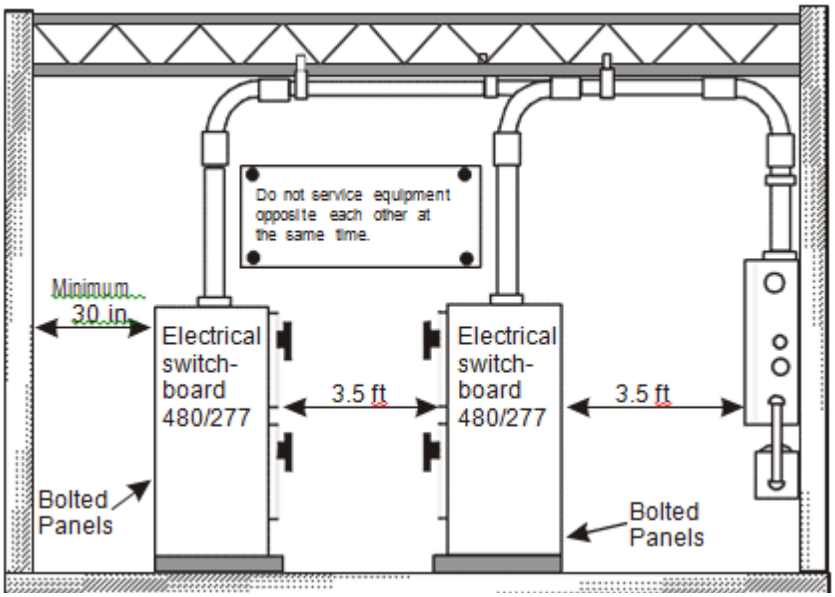

Figure 6.3 – Working space requirements for rear or side access

Table 6.4 – Working Spaces Around Enclosures and Equipment			
Nominal Voltage to Ground	Minimum Clear Distance (FT)		
	Condition 1	Condition 2	Condition 3
0 - 150	3	3	3
151 - 600	3	3.5	4
601 – 2,500	3	4	5
2,501 – 9,000	4	5	6
9,001 – 25,000	5	6	6

Condition 1 *- Exposed live parts on one side and no live parts or grounded parts on the other side of the working space, or exposed live parts on both sides effectively guarded by suitable wood or other insulating materials. Insulated wire or insulated bus bars operating at not over 300 volts to ground shall not be considered live parts.*

Condition 2 *- Exposed live parts on one side and grounded parts on the other side. Consider concrete, brick, or tile walls grounded.*

Condition 3 *- Exposed live parts on both sides of the work space (not guarded or enclosed, as provided in Condition 1) with the worker between.*

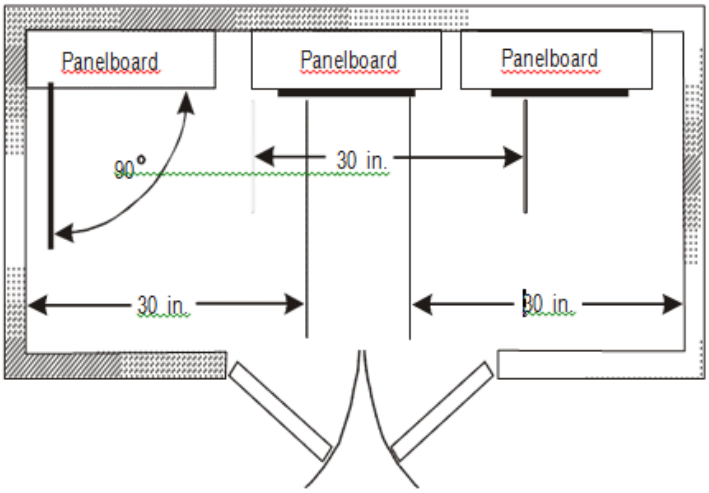

Figure 6.4 – Working space requirements for doors and hinged panels

c. **Doors and hinged panels** - Doors and hinged panels must have at least at least a 90-degree opening. Keep working space clear at all times. Do not store parts, tools, and equipment in the clear space (see figure 6.4).

d. **Illumination** - Employees may not enter spaces containing exposed energized parts, unless illumination is provided that enables the employees to perform the work safely. Where lack of illumination or an obstruction precludes observation of the work to be performed,

employees may not perform tasks near exposed energized parts. Employees may not reach blindly into areas which may contain energized parts.

4. **Passageway Barriers** - Provide effective barriers or other means (barrier tape) to ensure that areas containing electrical circuits or equipment are not used as passageways when energized lines or equipment are exposed for testing or maintenance. This includes open doors on motor control centers, and switchgear.
5. **Confined or enclosed workspaces** - When an employee works in a confined or enclosed space (such as a manhole or vault) that contains exposed energized parts, Centurion Power shall provide, and the employee shall use, protective shields, protective barriers, or insulating materials as necessary to avoid inadvertent contact with these parts. Doors, hinged panels, and the like shall be secured to prevent their swinging into an employee and causing the employee to contact exposed energized parts.
6. **Portable ladders** shall have nonconductive side rails if they are used where the employee or the ladder could contact exposed energized parts.
7. **Conductive apparel** - Conductive articles of jewelry and clothing (such a watch bands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear) may not be worn if they might contact exposed energized parts. However, such articles may be worn if they are rendered nonconductive by covering, wrapping, or other insulating means.

VII. PERSONAL PROTECTIVE GROUNDING

1. **General -** Qualified persons must comply with applicable provisions of Health and Safety Policy HSE 17 Personal Protective Equipment. Include written grounding procedures in all clearances, special work permits, etc. The JSA must include the procedures, and employees must discuss them before beginning work.
2. **Over 600 Volts** - Place grounds as close as possible to the work and within sight of the workers for all electrical circuits and equipment operated in excess of 600 volts. The clearance holder is personally responsible for proper placement and removal of protective grounds.
3. **Personal Protective Ground Cables** - Personal protective grounds and clamps must be capable of conducting the calculated maximum fault current available for the time necessary to clear the fault. They must be sized in accordance with Health and Safety Policy HSE 17.
4. **Prior to Applying Grounds** - After implementing hazardous energy control, use a hot-stick “noise tester” or similar approved device of sufficient insulating capacity to verify that the circuit or equipment is de-energized before placing personal protective grounds. Test the voltage tester immediately before use on a known energized source of similar voltage before testing the equipment to be worked on. The circuit/equipment to be worked on must be considered energized while conducting the test.
5. **Placement and Removal of Personal Protective Grounds** - After de-energization, install personal protective grounds so that all phases of lines and equipment are visibly and effectively bonded together in a multi-phase short and connected to ground at one point. Do not use single-phase personal protective grounds or grounding chains. Install personal protective grounds using a hot-stick or voltage-rated gloves on both sides of the work area, if possible. This precaution prevents a possible back feed, especially when working on transformers and related equipment. When attaching grounds, attach the ground end first, and then attach the other end to the de-energized circuit. When removing personal protective grounds, first remove the grounding clamp from the

de-energized circuit using a hot stick or voltage rated gloves, and then remove the other end from the ground connection.

VIII. TEMPORARY WIRING

1. **Installation -** Temporary wiring must meet all the requirements of the National Electrical Code (NEC). Permit temporary wiring only during the period of construction, remodeling, maintenance, repair, or demolition. Remove temporary wiring immediately upon completion of construction or purposes for which the wiring was installed. Permit temporary wiring used for feeders and branch circuits in multi-conductor cord or cable assemblies or open conductors, and guard, bury, or isolate it by elevation to prevent accidental contact by personnel or equipment. Allow at least 10 feet of vertical clearance above walkways for circuits rated 600 volts or less. Support all exposed temporary wiring on insulators. Provide ground fault protection for personnel for all temporary wiring installations to comply with the NEC.
2. **Weatherproof** - Conductors used in tunnels, shafts, trenches, and wet or damp locations must be of a type approved for the purpose as listed in Article 310 of the NEC.
3. **Bushings** - Wiring installed in conduit must be equipped with bushings at ends of conduit.
4. **Receptacles -** All receptacles must be of the grounding type and must be electrically connected to the equipment grounding conductor. Do not install receptacles on construction sites on branch circuits that supply temporary lighting. Do not connect receptacles to the same ungrounded conductor of multi-wire circuits that supply temporary wiring.
5. **Lighting Strings** - Temporary lighting strings must consist of nonconductive lamp sockets and connections permanently molded to the conductor insulation. Use lamp guards to protect bulbs attached to festoon lighting strings and extension cords. Promptly replace broken or defective bulbs. Protect all lights used for illumination from accidental contact or breakage.
6. **Extension Cords** - Extension cords must be 3-wire grounded type, must be designated for hard service or extra hard service, and must be listed by the Underwriters Laboratories (uL). Do not exceed the rated load. Use cords only in continuous lengths without splice. Do not use worn or frayed extension cords. To protect cable assemblies, flexible cords, and cables from damage, support them in place with approved staples, cable ties, straps, or similar type fittings installed to prevent damage.

IX. DISCONNECT AND OVERCURRENT PROTECTION

1. **Marking** - Plainly mark, label, or arrange switches, fuses, and automatic circuit breakers to identify the circuits or equipment controlled by them.
2. **Switches** - Switches must be of the enclosed safety type, with the enclosures grounded, and installed so as to minimize the possibility of accidental operation.
3. **Lockout Provision** - Provide disconnects and breakers with a means of locking in the OFF position. Also, fuse cabinets and circuit breaker cabinets must be equipped with lockable doors.
4. **Wet and Outside Locations** - Enclose switches, circuit breakers, fuse panels, and motor controllers in wet or outside locations in approved weatherproof cabinets or enclosures. Prevent moisture or water from entering or accumulating within the cabinets or enclosure.
5. **Shielding** - Isolate or shield the disconnecting means to protect employees.

6. **Service Entrance Disconnect** - Install the service entrance disconnecting means in a readily accessible location, as close as possible to the point where the service entrance conductors enter the premise. The service disconnecting means must disconnect all the ungrounded service entrance conductors supplying power to the service equipment. This disconnecting means must plainly indicate that it is either in the open or closed position.
7. **Overcurrent Protection** - Fuses or circuit breakers must provide overcurrent protection for all ungrounded conductors. All overcurrent protection devices and conductors must be designed and installed according to the latest provisions of the NEC to ensure protection and proper installation. Do not place any overcurrent device in any permanently grounded conductor, except where the overcurrent device simultaneously opens all conductors of the circuit.

X. GROUND FAULT PROTECTION

1. **Requirement** - Protect all 125-volt, single-phase, 15 and 20 ampere receptacles outlets used in locations such as laboratories, shops, garages, wet locations, outdoor receptacles, bathrooms, kitchens, and for construction operations with a ground-fault circuit interrupter (GFCI). For temporary wiring, all 125 volt, single-phase, 15-, 20-, and 30-ampere receptacle outlets that are not a part of the permanent wiring of the building or structure and that employees use must have ground-fault circuit interrupter protection for personnel. For temporary wiring, receptacles other than 125 volt, single- phase, 15-, 20-, and 30-ampere receptacles must have ground-fault circuit protection or protection in accordance with the assured equipment grounding conductor program. The ground-fault interrupter must open the circuit on a ground current of 5 mill amperes plus or minus 1 and must be equipped with an integral push-button test circuit. Install the GFCI in accordance with the manufacturer's instructions and test it before initial use and periodically thereafter.
2. **Assured Equipment Grounding Conductor Program** - Where GFCI protection is not provided for personnel, the Assured Equipment Grounding Conductor Program must be implemented. This program must be used on all receptacle outlets, except 125-volt, single-phase, 15-, 20-, and 30-amp receptacle outlets, used during construction, remodeling, maintenance, repair or demolition of buildings, structures, equipment, or similar activities. Receptacle outlets must not be connected to any branch circuits that supply power to lighting outlets, per NEC 527.4(D).
    a. All cord sets and receptacles that are not part of the permanent wiring of the building or structure, as well as cord and plug connected equipment required to be grounded, must meet the following requirements:
        i. Have a written description of the program
        ii. Have a qualified person to implement the program
    b. All equipment grounding conductors must be tested for continuity and be electrically continuous.
    c. Each receptacle and attachment plug must be tested for correct attachment of the equipment grounding conductor.
    d. Tests are required under the following conditions for an Assured Equipment Grounding Program:
        i. Before first use onsite
        ii. When there is evidence of damage
        iii. Before equipment is returned to service following any repairs

iv. At intervals not exceeding 3 months

e. The required test for all equipment grounding conductors and each receptacle and attachment plug above must be recorded and available for inspection.

f. Any equipment which has not met the requirements of this program shall not be available or permitted to be used. Damaged items shall not be used until repaired.

XI. HAZARDOUS LOCATIONS

1. **General** - A hazardous location is any location where a potential hazard, either a fire or an explosion, can exist because of the presence of flammable, combustible, or ignitable materials. These materials can consist of gases, vapors, liquids, dust, fibers, etc. Hazardous locations are classified according to the properties and quantities of the hazardous material that may be present. Hazardous locations are divided into three classes, two divisions, and seven classified groups as follows: Class I, II, and III; Division 1 and 2; and Groups A, B, C, D, E, F, and G. Wiring methods used in hazardous locations must comply with more stringent requirements than wiring methods used in other locations.
2. **Requirement** - Electrical wiring and equipment installed in hazardous locations, as defined in the National Electrical Code, must conform to the respective standards. All components and equipment used in hazardous locations must be from among the equipment listed by a nationally recognized testing laboratory, such as Underwriters Laboratories, Inc. (uL), or FMC.
3. **Marking** - Approved equipment must be marked to show the class, group, and operating temperature or temperature range referenced to a 40 degree C ambient. Install approved equipment in accordance with the requirements of the NEC.
4. **Intrinsically Safe Systems** - Permit intrinsically safe apparatus and wiring in any hazardous (classified) location for which it is approved.
5. **Maintenance** - Maintain wiring components and equipment as explosion-proof. There must be no loose or missing screws, gaskets, threaded connections, seals, or other impairments to tight conditions.

XII. WET LOCATIONS

1. **Requirement** - Only the following type electrical systems are permissible for use in wet areas where there is danger of electrical shock:

   a. Ground-Fault Circuit Interrupter. Electrical circuits for lighting and hand tools must not exceed 120 volts and must be protected by UL-listed ground-fault circuit interrupters installed in conformance with the manufacturer's specifications, and tested before beginning work.

   b. Stationary Portable Equipment. Connect stationary portable electrically powered equipment, such as pumps, heaters, blowers, welders, transformers, etc., to a circuit protected by a ground-fault circuit interrupter or effectively ground the equipment with both an internal grounding system and a visible flexible copper ground wire.

   c. Substitute Equipment. Whenever practical, substitute air, battery, or hydraulically powered tools for electrically powered tools.

2. **Receptacles** - Receptacles and cord connectors used in damp or wet locations must be designed for use in wet or damp locations and, unless approved for submersion, must not be allowed to lie in water.

XIII. BATTERY CHARGING

1. **Requirement** - Restrict battery charging operations to well-ventilated areas designated for that purpose. Post signs with the following wording (or equivalent) at all entrances when explosive gases are produced: BATTERY ROOM - NO SMOKING OR OPEN FLAME WITHIN 25 FEET
2. **Ventilation** - Ventilation must be adequate to ensure diffusion of the battery gases and prevent accumulation of an explosive mixture.
3. **Vented Batteries** - Locate non seal-type batteries in enclosures with outside vents or in well-ventilated rooms, arranged to prevent the escape of fumes, gases, or electrolyte spray or liquid into other areas. Keep safety vent caps in place during charging.
4. **Racks and Trays -** Racks and trays must be of sufficient strength and treated with an electrolyte resistive coating.
5. **Housekeeping** - Keep battery storage and charging areas free of combustible materials and scrap. Promptly clean up and dispose of acid or corrosive spills.
6. **Protective Equipment -** Provide face shields, goggles, aprons, and rubber gloves for employees who handle acids or recharging batteries.
7. **First Aid** - Provide facilities for quick emergency drenching of the eyes and body within 25 feet of a battery charging area.

XIV. TRAINING REQUIREMENTS FOR ELECTRICALLY QUALIFIED PERSONS

1. **General** - NFPA 70E, 2023 Edition, and OSHA 29 CFR 1910.269 contains references for training requirements. A person must have all the training listed below to be a qualified person.
    a. Required training must be of classroom and on-the-job training.
    b. Qualified persons must be trained in and familiar with Safety-Related Work Practices, safety procedures, and other safety requirements pertaining to their work. Qualified persons must be trained in First Aid and CPR and be familiar with applicable emergency procedures. They must be trained in any other safety practices, including those not specifically addressed in this section such as confined space entry, manhole and pole-top rescue, fall protection, personal protective equipment, etc.
    c. Qualified persons must be trained and knowledgeable in Job Safety Analysis (JSA). This training and knowledge includes recognizing work hazards, doing the work safely, writing a JSA, and communicating hazards and safety work practices to fellow employees.
    d. Qualified persons must be trained and knowledgeable in the construction, operation, and maintenance of equipment and specific work methods. They must be trained to recognize and avoid hazards with respect to equipment or work methods and must be familiar with applicable codes and standards. They shall be familiar with the proper use of special precautionary techniques, personal protective equipment, insulating and shielding materials, and insulated tools and test equipment.

2. **Unqualified employee Training requirements** – Unqualified employees working in areas with potential electrical shock but are not qualified persons shall be trained and familiar with electrical related work practices in general and related to their respective job assignment. In addition unqualified personnel will be trained on safe work clearances when working around live energized conductors.

3. **Additional Training Required** - Qualified persons permitted to work within limited approach boundaries (Table 4.1) of exposed conductors and parts must, at a minimum, be additionally trained in all of the following:

    a. Skills and techniques necessary to distinguish exposed energized parts from other parts.

    b. Skills and techniques necessary to determine the nominal voltage of exposed energized parts. These skills and techniques include those necessary to safely use high and low-voltage meters, test instruments, and personal protective equipment while performing measurements and testing.

    c. The approach distances specified in Table 4.1 and corresponding voltages to which the qualified person will be exposed. (Post Table 4.1 in the Electric Shop and hand it out to each team member before beginning work on a project that involves work near exposed energized lines or other equipment.)

    d. The decision-making process to determine the degree and extent of the hazard and the personal protective equipment necessary to perform the task safely. For example, clothing that would increase injury by fire is not permitted. Clothing made of acetate, nylon, polyester, and rayon is prohibited. Refer to OSHA 29 CFR 1910.269 on apparel.

    e. Lock Out/Tag Out and clearance procedures of HSE 14, Lock Out Tag Out Policy

    f. Conductive items of jewelry or clothing shall not be worn unless they are rendered non-conductive by covering, wrapping or other insulating means.

4. **In-Training** - A unqualified person who is undergoing on-the-job training and who, in the course of this training, has demonstrated the ability to perform specific duties safely at his or her level of training, and is under the direct supervision of a qualified person, is considered a qualified person for the performance of those specific duties only. For qualified persons, Centurion Power must determine by regular supervision and inspections of the employee's work and his/her on-the-job work practices, at least annually, that each qualified person is complying with the safety-related-work practices required.

5. **Training Documentation** – Centurion Power must generate and maintain written documentation that each employee has received the required training. Centurion Power verify that the training has been accomplished and is current. The documentation must contain the employee's name, the training he/she has received, and dates of training. Employee must demonstrate their competence by their proficiency in safety-on-the-job and work practices. Maintain training records in the employee's training file for the duration of employment. Employment records that indicate an employee has received the required training are an acceptable means of meeting this requirement.

6. ***An employee must receive additional training (or retraining) under any of the following conditions***:

    a. If supervision and/or annual inspections of the employees work and on- the-job, safety-related work practices indicate the employee is not knowledgeable or complying with the requirements of this section.

b. If new technology, new type equipment, or changes in procedures dictate the use of safety-related work practices that are different from those which the employee would normally use.

c. If the worker must use safety-related practices not normally used during normal job duties.

d. If the worker has not performed this specific task within 1 year or feels a need for additional training to perform the job safely.

e. If the worker's other qualifications have expired, such as First Aid and CPR.

Note: An employee who performs a task less than once a year must receive hazard retraining before the employee may perform the task again. Retraining may be done during the JSA, but must also include a jobsite visit to discuss hazards. Performing a task less than once a year is not considered a part of normal job duties.

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Centurion Power

HSE MANUAL

HSE 12

Fall Protection/Working from Heights Policy

Revision 0
6/1/2024

I. SCOPE

1. Centurion Power has implemented this policy to establish minimum requirements for practices and procedures to protect employees from hazards of falls when working in or from elevated work areas.
2. This policy applies to all Centurion Power employees work sites, i.e., offices, client job sites, etc., where field construction related activities involve exposure to heights greater than or equal to (4) four feet exist. Centurion Power has chosen to follow a (4) four foot high rule for all applications of fall protection.

II. PLAN CONTENT

1. **Anchorage** -means a secure point of attachment for lifelines, lanyards, or deceleration devices that is capable of supporting 5,000 lbs. per employee or two times the intended impact load, whichever is greater, or for a positioning system, 3,000 lbs. without failure.
2. **Aerial Personnel Lift -** Mechanical device that lifts personnel to heights in a work basket.
3. **Approved** - means, for the purpose of this section, authorized by the Director of Safety, tested and certified by the manufacturer or any recognized national testing laboratory to possess the strength requirements specified in this section.
4. **Catenary Line** – see Horizontal Lifeline.
5. **Competent Person** - means an individual knowledgeable (through experience and/or training) of fall protection equipment, including the manufacturer's recommendations and instructions for the proper use, inspection, and maintenance; who is capable of identifying existing and potential fall hazards; who has the authority to take prompt corrective action to eliminate those hazards; and who is knowledgeable of the rules contained in this section regarding the erection, use, inspection, and maintenance of fall protection equipment and systems.
6. **Controlled Access Zone** - means an area in which certain work may take place without the use of guardrail systems, personal fall arrest systems, or safety net systems and access to the zone is controlled.
7. **Deceleration Device** - means a device manufactured (fall) shock-absorbing device whereby the forces of the fall are rapidly reduced to meet acceptable levels.
8. **Drop Line** - means a vertical lifeline secured to an upper anchorage for the purpose of attaching a lanyard or device.
9. **Fall Arrest System (Personal)** - means the use of multiple, approved safety equipment components such as body harnesses, shock absorbing lanyards, deceleration devices, drop lines, horizontal and/or vertical lifelines and anchorages, interconnected and rigged to one's body as to arrest a free fall.
10. **Fall Protection Work Plan** - means a written planning document in which the employer identifies areas in the work area where a fall hazard of six (6) feet or greater exists, whereby conventional Fall Restraint and Fall Arrest Systems cannot be utilized. The fall protection plan shall be prepared by a qualified person for the specified work site.
11. **Fall Restraint System** - means an approved device and any necessary components that function together to restrain an employee in such a manner as to prevent that employee from falling to a lower level.

12. **Fall Distance** - means the actual distance from the employee's work platform (area) to the level where a fall would stop (ground level or otherwise).
13. **Full Body Harness** - means a configuration of connection straps to distribute a fall arresting force over at least the thighs, shoulders and pelvis, with provisions for attaching a lanyard, lifeline, positioning rings, or deceleration devices.
14. **Full Body Harness System** - means a Class III full body harness and shock absorbing lanyard attached to an anchorage or attached to a horizontal or vertical lifeline which is properly secured to an anchorage(s) capable of withstanding the forces specified in the applicable sections.
15. **Hardware -** means snap hooks, D-rings, buckles, carabineers, and adjusters used to attach the components of a fall protection system together.
16. **Holes (floor, roof or walking surface)-** means any opening in the floor greater than two inches whereby falling objects or an employee fall equal to, or greater than (6) six feet is possible.
17. **Horizontal Lifeline** - means an approved rail, rope, or synthetic cable installed in a horizontal plane between two anchorages and used for attachment of an employee's lanyard or lifeline device while moving horizontally.
18. **Lanyard** - means a flexible line of webbing, rope or cable (usually in (2) two, (4) four or (6) six foot lengths) used to secure a harness to a lifeline or an anchorage point.
19. **Leading Edge** - means the advancing edge of a floor or roof, where a fall of more than (6) six feet is possible to the ground or to another level.
20. **Lifeline (Vertical or Horizontal)** - means an approved vertical line from a fixed overhead anchorage or horizontal line between two horizontal anchorages, independent of walking or working surfaces, to which a lanyard or device is secured.
21. **Restraint Line** - means a line from a fixed anchorage or between two anchorages to which an employee is secured in such a way as to restrict the employee from reaching a point where falling to a lower level is possible.
22. **Shock Absorbing Lanyard** - means a flexible line of webbing or rope used to secure a harness to a lifeline or anchorage point that has an integral shock absorber of either a rip-stitch or retractable configuration.
23. **Snap hook** - means a locking hook at the end of a lanyard or restraining/positioning line that has a double-action locking mechanism intended to eliminate unintentional unhooking from the D-ring of a body harness. Non-locking snap hooks are prohibited.
24. **Standard Guardrail** - means a top rail at 42 inches high (plus or minus (3) three inches), a mid-rail installed midway the top edge of the guardrail system and the surface.
25. **Toe board** - means a barrier at the base of the guardrail system to prevent material and objects from falling off the surface. They are at least four (4) inches of nominal height with no less than one (1) inch clearance from the surface.
26. **Unprotected Sides and Edges -** means any side or edge (except at entrances to points of access) of a floor, roof, ramp, or runway where there is no wall or guardrail system.
27. **Walking/Working Surface -** means for the purpose of this section, any area whose dimensions are 45 inches or greater in all directions through which employees pass or conduct work, and can include scaffolding and aerial lifts regardless of surface dimensions.
28. **Wall Opening -** means a gap in a wall where the outside bottom edge is (6) six feet or more above lower levels, and the inside bottom edge (e.g. parapet wall) is less than 39 inches above the walking/working surface.

29. **Work Area** - means that portion of a walking/working surface where work activities are being performed.

III. TRAINING

1. Scaffold User Training
    a. The following topics shall be covered in scaffold user training:
        i. Hazard recognition and control
        ii. Fall protection equipment. Users of fall protection equipment will be trained on fall hazards of the work being performed and the correct procedures for erecting, maintaining, disassembling, and inspecting fall protection equipment. Fall protection systems including fall arrest systems, positioning device systems and warning line systems
        iii. Ladder use
        iv. Falling object protection
        v. Electrical hazards
        vi. Scaffold loading
        vii. Written examination
2. Aerial Lift Operators
    a. Aerial lift operators are required to have completed the following training:
        i. Scaffold user training
        ii. The aerial lift Physical Hazard Data sheet review
        iii. Review of the specific manufacturer's operating instructions
        iv. Review (or have explained by a Qualified Person) of all decals, warnings and instructions displayed on the aerial lift
3. Fall Protection Training Program
    a. Thorough training in the selection and use of personal fall arrest systems is imperative. Employees must be trained by a competent person in the safe use of the fall protection system.
    b. Training on inspection and care of fall arrest systems.
    c. Employees must be periodically re-trained. Circumstances where retraining is required include, but are not limited to include changes in the workplace which render previous training obsolete, changes in the types of fall protection systems, or inadequacies in an affected employee's knowledge or use of fall protection systems.
    d. Training documentation shall be provided and maintained to verify the employee trained.

IV. HAZARDS

1. Fall Hazards

    a. Where a worker could fall a specific distance as described in the applicable legislation for the area in which the work is being performed, or is exposed to an unusual risk of injury, and is not protected by guardrails, fall protection must be worn. Centurion Power recognizes that working at elevated heights poses a higher risk of injury in the event of a fall. In situations where guardrails are not effective or could cause greater risk if they were in place, fall protection in the form of a fall arrest system needs to be used.

    Note: *Permanent facilities are covered in applicable legislation for the area in which you are working. Guardrails are required in facilities on every open-sided floor or platform more than (4) four feet (1.2 meters) above the adjacent floor or ground level. Whenever performance of any task would allow a worker to fall a distance of (4) four feet (1.2 meters) or more for general/maintenance tasks, or any distance where the likelihood of a serious or fatal injury exists, the hazards of falling must be identified, evaluated and controlled based on the hierarchy of controls. Ensure you are aware of the legislative requirements for the area in which the work is to take place.*

    b. In the event an employee falls, or some other related, serious incident occurs, (e.g., a near miss) Centurion Power shall investigate the circumstances of the fall or other incident to determine if the fall protection plan needs to be changed and shall implement those changes to prevent similar types of falls or incidents. Falls and subsequent injury may occur because of:

        i. Lack of fixed, guarded, work platforms
        ii. Inadequate lighting or space to conduct tasks
        iii. Difficult access because of the proximity of other equipment
        iv. Lack of a solid base for portable ladders
        v. Carrying tools and equipment to elevated locations
        vi. Inadequate training
        vii. Improper use of fall protection equipment

    c. Centurion Power shall provide for prompt rescue of employees in the event of a fall or shall assure the employees are able to rescue themselves. Employees should utilize the Attachment A “Fall Arrest Rescue Plan” for each time fall protection is used. The fall protection plan shall be prepared by a qualified person for the specified work site.

2. Engineering Controls

    a. Facility or Field Management shall have a qualified competent person determine if engineering controls can eliminate or lessen the hazard of the work area or job site. Engineering controls shall be provided where possible to minimize fall hazards.

V. REQUIREMENTS

1. Fall Protection

    Centurion Power recognizes that working at elevated heights poses a higher risk of injury in the event of a fall. In situations where guardrails are not effective or could cause greater risk if they were in place, fall protection in the form of a fall arrest system needs to be used. This section outlines the requirements set by OSHA for a fall arrest system to be used.

    Note: *Guardrails are required in facilities on every open-sided floor or platform more than (4) four feet above the adjacent floor or ground level.*

a. Fall Arrest System – General Requirements

i. The back D ring between the shoulders should be used for fall arrest. The front chest ring may be used for ladder climbing systems, and the side D rings are for positioning or restraint only.

ii. Do not use a lanyard with a knot in the lanyard. Do not connect one lanyard to another. Do not use hooks or connectors that will not completely close over the anchor.

iii. Personal fall arrest systems and their use shall comply with the provisions set forth below. Body belts are not acceptable as part of a personal fall arrest system.

NOTE: *The use of a body belt in a positioning device system is acceptable.*

iv. Connectors shall be drop forged, pressed, or formed steel, or made of equivalent materials and approved for use as fall protection. Connectors shall have a corrosion-resistant finish, and all surfaces and edges shall be smooth to prevent damage to interfacing parts of the system.

v. Snap hooks shall be:

a. Sized for compatibility with the member to which they are connected

b. Designed in order to prevent their disengagement through contact with the connecting member

c. Used to connect to a horizontal lifeline, which may become a vertical lifeline, on suspended scaffolds (or similar work platforms). Snap hooks shall be capable of locking in both directions

vi. Horizontal lifelines shall be designed, installed, and used under the supervision of a qualified person, as part of a complete personal fall arrest system, which maintains a safety factor of at least two.

vii. Lanyards and vertical lifelines shall have a minimum breaking strength of 5,000 pounds.

viii. Lifelines shall be protected against being cut or abraded.

ix. Anchorages used for attachment of personal fall arrest equipment shall be independent of any anchorage being used to support or suspend platforms and be capable of supporting at least 5,000 pounds per employee attached, or shall be designed, installed, and used as follows:

a. As part of a complete personal fall arrest system, which maintains a safety factor of at least two; and

b. Under the supervision of a qualified person

x. Personal fall arrest systems, when stopping a fall, shall be rigged such that an employee can neither free fall more than (4) four feet nor contact any lower level.

xi. Full body harnesses, and components shall be used only for employee protection and not to hoist materials.

xii. Personal fall arrest systems and components subjected to impact loading shall be immediately removed from service and shall not be used again for employee protection until inspected and determined by a competent person to be undamaged and suitable for reuse.

xiii. Preplan to provide for prompt rescue of employees in the event of a fall or ensure that employees are able to rescue themselves.

xiv. Personal fall arrest systems shall be inspected prior to each use for wear, damage and other deterioration, and defective components shall be removed from service. Inspections should follow the manufacturers' recommendations but at a minimum, the inspection should evaluate the conditions of D rings, buckles, keepers, back pads, webbing, stitching and labels.

b. Positioning Device Systems

Positioning device systems and their use shall conform to the following provisions:

i. Positioning devices shall be rigged such that an employee cannot free fall more than (2) two feet.

ii. Positioning devices shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 3,000 pounds, whichever is greater.

iii. Connecting assemblies shall have a minimum tensile strength of 5,000 pounds.

iv. Snap hooks shall be:

a. Sized for compatibility with the member to which they are connected

b. Designed in order to prevent their disengagement through contact with the connecting member

v. Positioning device systems shall be inspected prior to each use for wear, damage, and other deterioration and defective components shall be removed from service.

vi. Body belts, harnesses, and components shall be used only for employee protection and not to hoist materials.

c. Warning Line Systems

Warning line systems and their use shall comply with the following provisions:

i. The warning line shall be erected around all sides of the roof work area.

ii. When mechanical equipment is not being used, the warning line shall be erected not less than (6) six feet (1.8 m) from the roof edge.

iii. When mechanical equipment is being used, the warning line shall be erected not less than (6) six feet (1.8 m) from the roof edge which is parallel to the direction of mechanical equipment operation, and not less than 10 feet (3.1 m) from the roof edge which is perpendicular to the direction of mechanical equipment operation.

iv. Points of access, materials handling areas, storage areas, and hoisting areas shall be connected to the work area by an access path formed by two warning lines.

v. When the path to a point of access is not in use, a rope, wire, chain, or other barricade, equivalent in strength and height to the warning line, shall be placed across the path at the point where the path intersects the warning line erected around the work area, or the path shall be offset such that a person cannot walk directly into the work area.

vi. Warning lines shall consist of ropes, wires, or chains, and supporting stanchions erected as follows:

a. The rope, wire, or chain shall be flagged at not more than (6) six feet intervals with high-visibility material.

b. The rope, wire, or chain shall be rigged and supported in such a way that its lowest point (including sag) is no less than 34 inches from the walking/working surface and its highest point is no more than 39 inches from the walking/working surface.

c. After being erected, with the rope, wire, or chain attached, stanchions shall be capable of resisting, without tipping over, a force of at least 16 pounds applied horizontally against the stanchion, 30 inches above the walking/working surface, perpendicular to the warning line, and in the direction of the floor, roof, or platform edge.

d. The rope, wire, or chain shall have a minimum tensile strength of 500 pounds and after being attached to the stanchions, shall be capable of supporting, without breaking, the loads applied to the stanchions above.

e. The line shall be attached at each stanchion in such a way that pulling on one section of the line between stanchions will not result in slack being taken up in adjacent sections before the stanchion tips over.

vii. No employee shall be allowed in the area between a roof edge and a warning line unless a personal fall arrest system is used.

viii. Mechanical equipment on roofs shall be used or stored only in areas where employees are protected by a warning line system, guardrail system, or personal fall arrest system.

d. Training

Users of fall protection equipment will be trained on fall hazards of the work being performed and the correct procedures for erecting, maintaining, disassembling, and inspecting fall protection equipment.

2. Scaffold Use

Ensure all scaffold users have received user training.

a. Weather Conditions

Elevated Work Platforms (EWP) must not be used in storms or high wind conditions. Areas of scaffolds affected by snow or ice cannot be used until the snow or ice has been removed and the surface has been sanded or textured to eliminate slips. These areas need to be inspected and approved for use by a competent person.

b. Inspections

Scaffolds and scaffold components shall be inspected for visible defects by a competent person before initial use and after any occurrence, which could affect a scaffold's structural integrity.

Scaffolds and scaffold components shall be inspected for visible defects by a competent person before each shift's use. The tag will be placed adjacent to the scaffold access ladder. Do not use a scaffold that has not been inspected by a competent person for that work shift.

c. Fall Protection

i. Fall protection in the form of guardrails or fall arrest systems is required whenever erecting, dismantling or using scaffolding. Centurion Power requires the use of fall protection when working on scaffolds greater than (6) six feet in height. Height is measured from the ground to the scaffold platform.

ii. Centurion Power will rely on a guardrail system as the primary means of fall protection during scaffold use. If guardrails are not feasible, a fall arrest system will be used. Contact Health & Safety for guidance on alternative protective systems.

iii. Fall protection is needed on walkways meeting the height requirements specified above.

iv. The use of fall protection during construction or when dismantling a scaffold may present problems. Contact Health & Safety for recommendations for anchorage points.

d. Access

i. Ensure shoes are free of debris, oily material, etc. before climbing or working

ii. Do not carry materials as you climb. Keep both hands on the side rails. Hoist or have materials lifted to the platform.

iii. Use an access ladder or equivalent for safe access

iv. Do not climb on braces, cross-braces or guard rails

v. Maintain a clear path of travel to avoid tripping hazard

e. Construction-information for Scaffold Users

i. Erecting, moving, dismantling or altering a scaffold may only be performed under the supervision and direction of a trained, competent, qualified person. These actions may only be performed by trained employees selected by the competent person.

ii. Footing or anchorage shall be sound, rigid and capable of carrying the maximum intended load.

iii. Do not use unstable objects to support scaffolds or planks. Footing must be sound. Before use, the scaffold must be level, plumb and rigid.

iv. Scaffold poles, legs or uprights must be plumb and braced securely to prevent swaying or displacement.

v. Install guardrails and toe boards on all open sides and ends.

vi. Ensure guardrail height is between 38" and 42" from the base of the work platform. Additional heights must be approved by Health & Safety prior to construction. Guardrails are required on the front edge if the front edge of any platform is more than 12” from the face of work.

vii. Mid-rails should be approximately mid-way between top rail platform and toe boards. Toe boards must be a minimum height of 4" and must be secured. When the potential exists that workers may be under or walk under the scaffold area, a mesh screen must be added that extends from the top end of the guardrail to the working surface and span the full distance between uprights.

viii. Do not alter the scaffold.

ix. Do not use any scaffold component damaged or weakened beyond the required listed capacity. Questionable components should be immediately repaired or replaced, braced to meet rated capacity, or removed from service until repaired.

x. All planking shall be scaffold grade or equivalent.

xi. All planking and platforms, unless otherwise cleated, restrained by hooks (or an equivalent means), must extend over the supports by the following lengths:

a. For platforms less than 10 feet in length, the planks must extend between 6 -12" over the supports.

b. For platforms more than 10 feet in length, the planks must extend 6–18" over the supports.

xii. If platforms overlap, they must overlap not less than 12" and must occur over supports, unless restrained to prevent movement.

xiii. Abutted planks (continuous run) must rest on separate supports unless designed to rest on common supports (e.g. "hooked").

f. General Use

i. Do not permit debris or materials to accumulate on platforms.

ii. Overhead and falling object protection is required for workers on scaffolds. (Hard hats are always required while working on or around scaffolds).

iii. Makeshift devices (barrels, boxes, etc.) shall not be used to increase the working height of a scaffold.

iv. Ladders shall not be used to increase the working height of a scaffold (Exception: Large area scaffolds are permitted in certain conditions). See definition of Large Area Scaffold and contact Health & Safety.

v. Never alter or move a scaffold horizontally while employees are on them, unless they have been designed by a registered professional engineer specifically for such movement.

vi. Ensure wheels of any rolling scaffold are locked prior to use.

vii. Ensure the walking/working platform is fully planked.

viii. Ladders may not be used as work platforms unless each affected employee uses fall protection.

ix. Shield suspension ropes from heat producing processes.

g. Electrical Hazards

Do not erect, use, dismantle, alter or move scaffolds or have any conductive material handled on them that might come closer to exposed and energized power lines than as follows:

Voltage	Minimum Distance
<300 (Insulated)	3 feet
>300-50,000 (Ins/Un-insulated)	10 feet
> 50,000 (Ins/Un-insulated)	10 feet + 0.4 in for each 1KV over 50,000 volts)

NOTE: *Scaffolds may be closer to power lines if the utility company or other qualified person is contacted and the power lines have been de-energized or relocated to prevent accidental contact.*

i. Use tag lines when a swing load will be hoisted onto or near scaffolds.

ii. Contact Health & Safety if welding or burning will be conducted while on a scaffold.

iii. GFCIs should be used when operating electrical hand tools on scaffolds.

h. Scaffold Loading

Employees must ensure that the maximum intended load capacity of the scaffold in use is not exceeded.

Definition of:

i. Maximum Intended Load (MIL) - The total load of all persons, equipment, tools, materials, transmitted loads and other loads reasonably anticipated to be applied to a scaffold or scaffold component at any one time.

ii. Capacity - As applied to the scope of this Standard, each scaffold and scaffold component shall be capable of supporting, without failure, its own weight and at least (4) four times the maximum intended load applied or transmitted to it. (This is an inherent property of each manufactured component and must be met by the manufacturer.)

iii. Design - Scaffolds shall be designed by a qualified person and shall be constructed and loaded in accordance with that design.

iv. Loading - To avoid overloading a scaffold, the user must understand two factors to properly select and use a scaffold. They are: the maximum intended load and the rated load carrying capacity of the scaffold. Scaffolds are typically rated as light, medium and heavy duty:

v.

Rating	Rated Load Capacity
Light Duty	25lbs per sq./ft.
Medium Duty	50 lbs. per sq./ft.
Heavy Duty	75 lbs. per sq./ft.

i. Access

i. Safe and adequate access to the scaffold must be provided. Various forms are available: ladders, stairs, ramps, walkways, direct access from a structure, integral rungs, etc. Cross braces cannot be used for access. An access method must be provided for any platform more than (2) two feet above or below adjacent levels.

ii. Fabricated frame scaffolds typically have integral prefabricated access. This access must meet the following requirements:

a. Rungs must be at least 8 inches long.

b. Rungs must be uniformly spaced except where frame sections connect and can have a maximum spacing between them of 16.75 inches.

iii. Rest platforms must be provided every 35 feet.

iv. Ladders may not be used as work platforms unless each affected employee uses fall protection.

v. Hook-on and attachable ladders shall be specifically designed for use with the type of scaffold and meet the following requirements:

a. Rungs must be at least 11.5 inches long.

b. Rungs must be uniformly spaced and can have a maximum spacing between them of 16.75 inches.

c. The bottom step must be not more than 24 inches off the floor.

d. Rest platforms must be provided every 35 feet.

e. Ladders must be positioned so that they do not tip the scaffold.

f. Ladders may not be used as work platforms unless each affected employee uses fall protection.

vi. For stairway-type ladders, contact Health & Safety.

3. Platform

a. General - Scaffold platforms come in various forms and can generally be classified into three categories: solid wood, manufactured, or fabricated.

i. If solid wood planking is used, it must be scaffold grade lumber. This is noted by an American Lumber Standards Committee grading stamp on the plank indicating its suitability for scaffolds (e.g. "Scaffold Plank", "Scaf Plk", etc.).

ii. Manufactured is usually a laminated veneer, similar to plywood, except all grains run parallel to the length. Follow manufacturer's specifications for loading, testing, care, use, handling, storage and inspection.

iii. Fabricated platforms can be all metal or wood with metal framing.

b. Platform use guidelines - The following provides general standards for scaffold platforms:

i. Each level where work is conducted (work platforms) must be fully planked for full width with edges close together (no greater than 1" gap).

ii. All planking must be scaffold grade or better.

iii. Platforms and walkways must be at least 18" wide. (If a narrower width is necessary, guard rails and/or a personal fall arrest system (PFAS) are necessary.)

iv. The front edge of all platforms must be 14" or less from the work face (unless guard rails or a PFAS is used).

v. All planking or platforms, unless cleated, restrained by hooks or equivalent, must extend the following lengths over supports:

Platform Length	Extension Over Supports
<10'	6-12”
>10'	6-18”

vi. Abutted planks (or continuous run of planks) shall rest on separate supports unless designed to rest on common supports (e.g. "hooked").

vii. Overlapped planks shall occur over supports and cannot overlap less than 12" (unless nailed together or otherwise restrained to prevent movement).

viii. Do not intermix components of different manufacturers unless authorized by a competent person and components can fit together without force or modification. Structural integrity must be maintained.

ix. Do not use components of dissimilar metals.

x. Remove damaged or weakened planks immediately.

xi. Remove or clean-up, etc. any spills or slippery conditions (chemicals, snow, ice, etc.).

xii. Do not paint or otherwise obscure the platform surface. This could hide defects.

c. Deflection

i. Platforms shall not deflect more than 1/60 of the span when loaded. For example, if a seven-foot (7') plank is used on a standard six-foot (6') span and is loaded at the designed load (250-500 lbs.), it should not deflect more than 1.2".

6 Feet = 72" X 1/60 = 1.2"

ii. Approximately one inch is clearly visible through a visual observation. If deflection is greater, do not use the plank.

d. Inspections

Inspect each platform for defects or damage that could compromise its integrity.

i. Wood

a. Split ends that could cause weakness

b. Damage by fractures or sawed cuts, splintering, rails, concrete or plaster contamination

c. Spills: oil, corrosive or acidic liquids

d. Paint

e. Warping:

i. Bow - Deflection from flat end to end

ii. Crook - Edgewise deviation

iii. Cup - Deviation in the face side to side (forming a "cup")

iv. Twist - Deviation from flat, creating curl or spiral

ii. Metal

Review manufacturer's inspection specification. Evaluate for:

a. Bending

b. Cracks

c. Buckles

d. Corrosion

e. Broken/Missing Hooks

f. Gouges

iii. Scaffold Inspections

a. The dynamic nature of our work environmental produces many new, daily, variable, unanticipated hazards that can create a risk to employees working on elevated work platforms. For this reason, it is necessary to be prepared to take rapid action in the event a hazard is identified. Two steps will minimize the likelihood that dynamic site hazards will create a risk to employees:

   i. Daily Inspections

   ii. Corrective Action

b. Taking corrective action quickly can help minimize hazards and job delays. Action can include, depending on the nature, exposure, likelihood of risk to the employees working on an Elevated Work Platform (EWP):

   i. Speaking to the client, other contractors, etc. to control or eliminate the hazard.

   ii. Controlling or eliminating the hazard.

   iii. If no action will control or eliminate the hazard, stopping work immediately.

4. Guard Rail System

   a. Components

      The guardrail system consists of a top and mid-rail.

      i. Rail Height:

         a. Top – 38”-42"

         b. Mid - Approximately mid-way between top edge of top rail and the platform surface

      ii. Cross Braces as Guard Rails: Cross braces are an acceptable alternative to standard top and mid-rails in field operations when they meet the following criteria:

         a. Top Rail - Cross point is 38-48" above work platform

         b. Mid Rail - Cross point is 20-30" above work platform

         c. Cross brace end points at the upright must not be more than 48" apart

   b. Other Protective System Components

      i. Screens/Mesh - When screens or mesh are used they must:

         a. Extend from the top edge of the guard rail to the platform surface

         b. Extend fully between support members

      ii. Intermediate Members (balusters or rails) must:

         a. Extend from the top edge of the guardrail to the platform surface

         b. Be spaced no more than 19 inches apart

      iii. Solid Panels must:

         a. Extend from the top edge of the guardrail to the platform surface

      iv. Manila or Plastic Rope:

a. When rope is used as a substitute for standard guardrails, it shall be inspected by a competent person as often as necessary, but at least daily, to ensure it continues to meet the strength requirements of 200 lbs. applied as a horizontal or downward force.

v. Design

a. Guard rail system components must be specifically designed for scaffold use. Only those components supplied by the manufacturer or rental company may be used. Contact Health & Safety if an alternative is being considered.

vi. Guard Rail Surface

a. Must be designed to prevent injuries from lacerations

b. Must be smooth and free of defects such as burrs that could cause punctures, lacerations, snagging of clothing, etc.

vii. Prohibitions

a. Rail Ends - Rail ends must not overhang the terminal post unless the overhang does not create a projection hazard.

b. Steel/Plastic Banding - Shall not be used as a guardrail component.

5. Falling Object Protection

a. Employees working on scaffolds shall be protected from falling objects through the installation of toe boards, screens or guardrail systems, or through the erection of debris nets, catch platforms, or canopy structures that contain or deflect the falling objects.

b. Large objects shall be re-located to prevent the fall hazard.

c. Areas below scaffolds shall be protected through the installation of toe boards screens or guardrail systems on the scaffolds, or by barricading the area. If toe boards are used, materials or tools may not be stacked above the height of the toe boards.

6. Aerial Lifts

a. Centurion Power is committed to ensuring a safe work environment for our employees. To accomplish this, we have developed an Aerial Lift Standard (HS C020) to ensure that the equipment is complete, functional and used in compliance with regulatory standards and provides a safe elevated work platform for employees.

b. Rental Agreement

a. Please notify the equipment Rental or Leasing Company of the following information when arranging for rental or delivery. Centurion Power considers the equipment incomplete if defects, malfunctions, etc. are found during the pre-start inspection performed by Centurion Power. We will also consider the equipment incomplete if an up-to-date Operating Manual does not accompany the equipment.

c. Receipt of Equipment

Prior to operation of the equipment, ensure that items specified below are satisfied. If they are not, the equipment cannot be used.

i. Operating Manual - Verify that the Operating Manual accompanies the equipment. Review the manufacturers' operating instructions, user safety rules and other pertinent information contained in the Operating Manual.

ii. Inspection - Inspect the unit to ensure the equipment is sound and fully functional.

iii. Training - Ensure that the training is received by the AL operator and others who will perform work from the aerial lift. All employees who may operate the equipment must receive the training. Only those who received Elevated Work Platform (EWP) Users and aerial lift specific operator training are authorized to operate the equipment.

iv. Application - Ensure that the equipment will be used within the intended application or specified by the manufacturer.

v. Fall Protection - Appropriate fall protection (equipment and personnel) is available and used. A full body harness and lanyard are required on all aerial lifts.

vi. Work Area Inspection - Prior to work or movement of the aerial lift, inspect the work area for the following:

a. Drop-offs or holes

b. Bumps and floor obstructions

c. Debris

d. Overhead obstructions and electrical lines

e. Hazardous atmosphere - ensure that a flammable atmosphere doesn't exist and won't develop

f. Inadequate surface and support to withstand all load forces imposed by aerial lifts in all operating configurations

g. Wind and weather conditions

h. Presence of unauthorized persons

i. Other moving equipment in the area

j. Adequate ventilation for indoor operation (if used indoors)

k. Other possible unsafe conditions

vii. Take appropriate action to control the hazards identified in the work area inspection. If a hazard can't be eliminated or controlled, contact Health & Safety for further direction.

d. Pre-Start Inspections

i. Before each use (by shift) conduct a visual inspection and/or functional test of the following:

a. Operating and emergency controls

b. Safety devices

c. Personal protective devices, including fall protection

d. Air, hydraulic and fuel system for leaks

e. Cables and wiring harness

f. Loose or missing parts

g. Tires and wheels

h. Placards, warnings, control markings and operating and safety manuals

i. Outriggers, stabilizers, extendible axles and other structures

j. Guardrail system

k. Items specified by the manufacturer

ii. Review the Operating Manual to understand appropriate action to evaluate each item.

iii. Adjustments/Repairs - Only Centurion Power employees who are trained and authorized are permitted to adjust or repair an aerial lift.

iv. Defect/Malfunction Noted - If a defect, malfunction or other problem is noted during the pre-start inspection, DO NOT OPERATE the equipment. Repairs must be made prior to continuing use of the equipment.

e. Operations

The standards listed below shall be followed when operating an aerial lifts:

i. Battery Charging - Charge in a well ventilated area free of ignition sources.

ii. Elevated Traveling, Maneuvering - Aerial lifts may not be driven while elevated. They may, however, be maneuvered into position using the following guidelines. The operator shall:

a. Maintain a clear view of the path of travel

b. Maintain a safe distance from obstacles, debris, drop-offs, holes, depressions, ramps and other hazards to ensure safe elevated travel

c. Maintain a safe distance from overhead obstacles

NOTE: *Traveling to or from work areas in an elevated position is prohibited.*

iii. Entanglement - Take action to avoid creating a trip hazard from ropes, hoses, electrical cords, etc.

iv. Fall Protection - Full body harnesses and lanyards are required on all aerial lifts. Never attach the lanyard to fixed object that doesn't move with the aerial lifts. Guardrails shall be installed and access gates or openings closed, per manufacturer's instructions.

v. Footing - Maintain firm footing. Ensure trip hazards are removed from the platform. Do not sit or climb on the basket or railings.

vi. Fueling - Shut down the unit before fueling. Perform fueling in a well-ventilated area free of ignition sources.

vii. Height Increasing Methods - Makeshift devices (barrels, boxes, etc.) or ladders or protective structures (toe board, mid-rail, railings) shall not be used to increase working heights.

viii. Load Capacity - Do not exceed the rated capacity of the aerial lift.

ix. Load Distribution - Ensure that the load and its distribution on the platform and any platform extension are in accordance with the manufacturer's rated capacity for that specific configuration.

x. Misuse - Do not use the aerial lift as a crane or jack.

xi. Modifications - Modifications or alterations are not permitted.

xii. Operating Area - Do not operate the unit from a position on trucks, trailers, rail cars, floating vessels, scaffolds, unless permitted by the manufacturer.

xiii. Other Moving Equipment - When present, take precautions to prevent collision. Acceptable methods include: flagging, roping-off area, warning lights, barricading, flag person, etc.

xiv. Overhead Clearance - Ensure there is adequate clearance from overhead obstructions.

xv. Platform Positioning - Do not position against another object to steady the platform.

xvi. Power Lines - The aerial lift cannot be operated closer than the following to exposed and energized power lines:

Voltage	Minimum Distance
<300 (Insulated)	3 feet
>300-50,000 (Ins/Un-insulated)	10 feet
> 50,000 (Ins/Un-insulated)	10 feet + 0.4 in for each 1KV over 50,000 volts)

NOTE: *If work closer than the above distances is necessary, the local Utility or a qualified electrical person can de-energize or relocate the lines.*

xvii. Problems/Malfunctions - Report problems or malfunctions immediately.

xviii. Safety Devices - Do not alter or disable interlocks or other safety devices.

xix. Slopes or Inclines - The aerial platform shall not be driven on grades, side slopes or ramps exceeding those for which the aerial platform is rated by the manufacturer. See the operating manual. Set brakes and chock wheels when the aerial lift will be used on an incline or slope.

xx. Snagged Platform - If the platform or elevating assembly becomes caught, snagged or otherwise prevented from normal motion by adjacent structure or other obstacles such that control reversal does not free the platform, all personnel shall be removed from the platform before attempts are made to free the platform using ground controls.

xxi. Stability Enhancing - The outriggers, stabilizers, extendible axles, or other stability enhancing means, are used as required by the manufacturer. When stabilizers or outriggers are used, sound footing for the stabilizers and outriggers must be ensured.

xxii. Travel Speed - Under all travel conditions, the operator shall limit travel speed according to conditions of ground surface, congestion, visibility, slope, location of personnel, and other factors causing a hazard of collision or injury to personnel.

xxiii. Warnings and Instructions - Observe and follow all warnings and instructions indicated on decals, warnings and instructions displayed on the aerial lift. If obstructions must be approached, contact Health & Safety for an acceptable means to safely manage the hazard.

xxiv. Work Area - Rope off or barricade the work area where extensible and articulating boom platforms present a hazard due to pinch points while swinging the unit or from falling objects (tools, etc.). Ensure that personnel and equipment are cleared from area surrounding the aerial lift before lowering the unit.

xxv. Backing - The vehicle should have a reverse signal alarm audible above the surrounding noise level or the vehicle is to be backed up only when an observer signals that it is safe to do so.

f. Unsafe Conditions

i. Immediately cease operation and notify the supervisor if:

a. A malfunction or a suspected malfunction occurs; or

b. A potentially unsafe condition related to capacity, intended use, or safe operation occurs.

7. Equipment

Equipment purchased for fall protection shall meet the necessary OSHA, ANSI, and ASTM requirements and/or recommendations.

VI. REFERENCES

1. Safety Standards for Scaffold Use, 29 CFR 1910.28-.29.
2. Safety Standards for Scaffold Use, 29 CFR 1926.450.

REVISION DATE	REVIEW DATE	REVISION NUMBER	REVISION COMMENTS	AUTHOR
6/1/2024	6/1/2024	0	Create Document	Tony Asciutto

Attachment A

Fall Arrest Rescue Plan

OSHA standards don't specify a time rescue need to be conducted; however research indicates that suspension in a fall arrest device can result in unconsciousness, followed by death, in less than 30 minutes. The danger begins when someone is unable to move for as little as (5) five minutes. The tolerance varies greatly from person to person, but the negative effects can set in quickly. Centurion Power requires that for each time an employee is required to use fall arrest systems this Fall Arrest Rescue Plan will be filled out.

Date:	Job description:
Location:	

ANSWER THE FOLLOWING QUESTIONS:	
Have alternatives to using fall arrest equipment been considered?	
Will the employee be able to self-rescue in the event of a fall?	
If, No what additional support will be available to assist rescue?	

List the steps that will be taken to affect a rescue.
1.
2.
3.
4.
5.
6.

LIST THE RESCUE EQUIPMENT AVAILABLE		
Equipment	Check if Available	Location of Equipment
Ladder		
Rescue pole		
Rescue rope		
Scaffold		
Lifting device		
Block & Tackle		
Other rescue equipment:		

CREW SIGNATURES REQUIRED		

Note: This plan is to be kept on site where work activity is taking place.

Attachment B

INSPECTION AND MAINTENANCE CHECKLIST FOR FALL ARREST SYSTEMS

Warnings: Always read all instructions and warnings contained on the product and packaging before using any fall protection equipment.

Inspection: All fall protection equipment should be inspected prior to each use.

Training: All workers should be trained by a Competent Person in the proper use of fall protection equipment.

Regulations: Understand all Federal, State and Local Regulations pertaining to fall protection before selecting and using the equipment.

System Only: Components that are fully compatible with one another component should be used. Fall arrest systems that are designed and tested as complete systems should be used in this way.

CLEANING

Basic care of all safety equipment will prolong the durable life of the unit and will contribute toward the performance of its vital safety function. Proper storage and maintenance after use are as important as cleaning the equipment of dirt, corrosives, or contaminants. Storage areas should be clean, dry and free of exposure to fumes or corrosive elements.

Nylon or Polyester - Remove all surface dirt with a sponge dampened in plain water. Squeeze the sponge dry. Dip the sponge in a mild solution of water and commercial soap or detergent. Work up a lather with a vigorous back and forth motion; then wipe with a clean cloth. Hang freely to dry, but away from excessive heat.

Drying - Equipment should dry thoroughly without close exposure to heat, steam, or long periods of sunlight.

AFTER A FALL OCCURS, ALL COMPONENTS OF THE FALL ARREST SYSTEM SHOULD BE REMOVED FROM SERVICE AND DESTROYED

Attachment B (continued)
INSPECTION AND MAINTENANCE CHECKLIST FOR FALL ARREST SYSTEMS

HARNESS INSPECTION

1. **Webbing** - Grasp the webbing with your hands (6) six inches to (8) eight inches apart. Bend the webbing in an inverted "U". The surface tension resulting makes damaged fibers or cuts easier to detect. Follow this procedure for the entire length of the webbing, inspecting both sides of each strap. Look for frayed edges, broken fibers, pulled stitches, cuts, burns, and chemical damage
2. **D-Rings** - Check D-rings for distortion, cracks, breaks, and rough or sharp edges. The D-ring should pivot freely.
3. **Attachment of Buckles** - Inspect for any unusual wear, frayed or cut fibers, or broken stitching of the buckle or D-ring attachments.
4. **Tongue/Grommets** - the tongue receives heavy wear from repeated buckling and unbuckling. Inspect for loose, distorted or broken grommets. Webbing should not have additional holes punched.
5. **Tongue Buckles** - Buckle tongues should be free of distortion in shape and motion. They should overlap the buckle frame and move freely back and forth in their socket. Roller should turn freely on the frame. Check for distortion or sharp edges.
6. **Friction and Mating Buckles** - Inspect the buckle for distortion. The outer bars and center bars must be straight. Pay special attention to corners and attachment point at the center bar.

Attachment B (continued)
INSPECTION AND MAINTENANCE CHECKLIST FOR FALL ARREST SYSTEMS

LANYARD INSPECTION

When inspecting lanyards, begin at one end and work to the opposite end, slowly rotating the lanyard so that the entire circumference is checked.

7. **Hardware Snaps**: Inspect closely for hook and eye distortions, cracks, corrosion, or pitted surfaces. The keeper (latch) should seat into the nose without binding and should not be distorted or obstructed. The keeper spring should exert sufficient force to firmly close the keeper. Keeper locks must prevent the keeper from opening when the keeper closes.

8. **Web Lanyard:** While bending webbing over a pipe, observe each side of the webbed lanyard. This will reveal any cuts or breaks, swelling, discoloration, cracks and charring are obvious signs of chemical or heat damage. Observe closely for any breaks in stitching.

9. **Shock Absorber Pack**: The outer portion of the pack should be examined for burn holes and tears. Stitching on areas where the pack is sewn to D rings. Belts or lanyards should be examined for loose strands, rips, and deterioration.

10. **Shock-Absorbing Lanyard:** Shock-absorbing lanyards should be examined as a web lanyard (described in Item 3 above). However, also look for the warning flag or signs of deployment. If the flag has been activated, remove this shock absorbing lanyard from service.

11. **Self-Retracting Lanyard**: Check Housing – Before every use, inspect the unit's housing for loose fasteners and bent, cracked, distorted, worn, malfunctioning or damaged parts.

Retraction and Tension: Test the lifeline retraction and tension by pulling out several feet of the lifeline and allow it to retract back into the unit. Always maintain a light tension on the lifeline as it retracts. The lifeline should pull out freely and retract all the way back into the unit. Do not use the unit if the lifeline does not retract.

12. **Lifeline:** The lifeline must be checked regularly for signs of damage. Inspect for cuts, burns, corrosion, kinks, frays or worn areas. Inspect any sewing (web lifelines) for loose, broken or damaged stitching.

13. **Braking Mechanism**: The braking mechanism must be tested by grasping the lifeline above the impact indicator and applying a sharp steady pull downward which will engage the brakes. There should be no slippage of the lifeline while the brakes are engaged, once tension is released, the brakes will disengage and the unit will return to the retractable mode. Do not use the unit if the brakes do not engage.

Attachment B (continued)

INSPECTION AND MAINTENANCE CHECKLIST FOR FALL ARREST SYSTEMS

Full Body Harness and Lanyard Inspection Report										
Inspector :						Date:				
Instructions: 1. All parts of the body harness and its attachments must be inspected for wear and damage. 2. This √ symbol is for YES or OK. This **X** symbol is for NO or REPLACE. 3. Inspect and document monthly 4. Maintain the completed inspection report so that it is readily available for review.			Harness Webbing and/or Leather	All Stitching	Rivets & Eyelets	D-Ring(s) & Buckle(s) if applicable	Lanyard & Deceleration Device	Hook Safety Latch	Certification or Data Tag
Month	Harness Serial Number	Lanyard Serial Number							
January									
February									
March									
April									
May									
June									
July									
August									
September									
October									
November									
December									

Centurion Power

HSE MANUAL

HSE 13

Ladder Safety Policy

Revision 0
6/1/2024

I. SCOPE

A. Centurion Power is committed to providing a safe and healthy work environment for our employees. The purpose of the program is to prescribe rules and establish minimum requirements for the construction, care, and use of the common types of ladders.

B. All ladders that are purchased and placed into service; or, any ladders that are engineered, manufactured and installed on any of Centurion Power equipment shall follow the requirements set forth by OSHA/ANSI specifications and listed in this program.

C. This program is applicable to all employees who may utilize ladders. When work is performed on a non-owned or operated site, the operator's program shall take precedence, however, this document covers Centurion Power and contractors and shall be used on owned premises, or when an operator's program doesn't exist or is less stringent.

II. DEFINITIONS

A. **Ladder**: an appliance usually consisting of two side rails joined at regular intervals by cross pieces called steps, rungs, or cleats, on which a person may step in ascending or descending.

B. **Stepladder**: a self-supporting portable ladder, nonadjustable in length, having flat steps and a hinged back. The size is designated by the overall length of the ladder measured along the front edge of the side rails.

C. **Single ladder**: a non-self-supporting portable ladder, nonadjustable in length, consisting of but one section. The overall length of the side rail designates its size.

D. **Extension ladder**: a non-self-supporting portable ladder adjustable in length. It consists of two or more sections traveling in guides or brackets so arranged as to permit length adjustment. Its size is designated by the sum of the lengths of the sections measured along the side rails.

E. **Fixed ladder:** a ladder permanently attached to a structure, building, or equipment.

F. **Individual-rung ladder**: a fixed ladder each rung of which is individually attached to a structure, building, or equipment.

G. **Cage**: a guard that may be referred to as a cage or basket guard, which is an enclosure that is fastened to the side rails of the fixed ladder or to the structure to encircle the climbing space of the ladder for the safety of the person who must climb the ladder.

III. RESPONSIBILITIES

A. Managers and Supervisors

1. Managers and supervisors are responsible for ensuring that all employees, and/or contractors have been trained in the use and inspection of ladders in accordance to the manufactures guidelines.

2. Managers and supervisors are responsible for ensuring that all employees and contractors are aware that if an inspection discovers a defect, the ladder shall not be used and be taken out of service.

B. Employees

1. Employees shall inspect ladders prior, during, and at the completion of each use to ensure the condition of the ladder and the safety of its occupants.
2. Employees are responsible for following this program and reporting any damage or repairs that may be needed to their supervisor.

IV. PROCEDURE

A. Inspection, Care, and Safe Work Practices of Ladders

1. Inspection: Ladders shall be inspected by a competent person for visible defects on a periodic basis and after any occurrence that could affect their safe use.
    a) Ladder rungs must be uniformly spaced or meet OSHA/ANSI specifications. Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced when the ladder is in position for use.
    b) Portable and fixed ladders with structural defects, such as, but not limited to, broken or missing rungs, cleats, or steps, broken or split rails, corroded components, or other faulty or defective components, shall either be immediately marked in a manner that readily identifies them as defective, or be tagged with "Do Not Use" or similar language, and shall be withdrawn from service until repaired
    c) If a ladder is tipped over, it shall be inspected by a competent person for side rail dents or bends, or excessively dented rungs; check all rung to side rail connections; check hardware connections; check rivets for shears.
    d) Ladders with broken or missing steps, rungs, or cleats, broken side rails, or other faulty equipment shall not be used; they shall either be immediately marked in a manner that readily identifies them as defective, or be tagged with "Do Not Use" or similar language, and shall be withdrawn from service until repaired.
    e) All wood parts shall be free from sharp edges and splinters; sound and free from accepted visual inspection from shake, or other irregularities.
2. Care:
    a) Ladders shall be maintained in good condition at all times, the joint between the steps and side rails shall be tight, all hardware and fittings securely attached, and the movable parts shall operate freely without binding or undue play.
    b) Metal bearings of locks, wheels, pulleys, etc., shall be frequently lubricated.
    c) Frayed or badly worn rope shall be replaced. Safety feet and other auxiliary equipment shall be kept in good condition to ensure proper performance.
    d) Rungs shall be kept free of grease and oil.
    e) Ladders shall be stored in a well-ventilated area in a manner to prevent sagging and warping.

B. Ladder Safe Work Practices:

1. Ladders shall be used only for the intended purpose for which they were designed.
2. The ladder shall be secured at the top or held by another person at the base.
3. The footing of the ladder shall be placed on a stable and level surface.

4. Extension ladders shall be placed at a 4:1 ratio. Ladders shall be used at an angle such that the horizontal distance from the top support to the foot of the ladder is approximately one-quarter of the working length of the ladder (the distance along the ladder between the foot and the top support.
5. When ladders are not able to be extended then the ladder shall be secured at its top to a rigid support that will not deflect.
6. Ladders shall not be placed on boxes, barrels, or other unstable bases to obtain additional height.
7. Ladders shall not be used in a horizontal position as platforms, runways, or scaffolds.
8. Ladders shall not be used by more than one person at a time.
9. Ladders shall not be placed in front of doors opening toward the ladder unless the door is blocked open, locked, or guarded.
10. If a ladder is used in a high traffic area, barricades shall be placed to avoid accidental displacement due to collisions.
11. Do not stand on the top two rungs or top of step ladders.
12. On two-section extension ladders the minimum overlap for the two sections in use shall be as follows:

Size of Ladder (feet)	Overlap (feet)
Up to and including 36’	3
Over 36 up to and including 48’	4
Over 48 up to and including 60’	5

13. Ladders shall extend a minimum of (3) three feet above top of upper landing surface. The ladder side rails shall extend at least (3) three (.9m) above the upper landing surface. When ladders are not able to be extended then the ladder shall be secured at its top to a rigid support that will not deflect.
14. The employee shall maintain a three (3) point grip on the ladder at all times and carry tools/equipment on a belt or hoist up. Do not carry anything in the hands that could cause injury in case of fall.
15. The employee shall face the ladder while ascending or descending.
16. The bracing on the back legs of stepladders is designed solely for increasing stability and not for climbing.
17. The ladder shall not be moved while occupied.

C. Portable Ladders

1. Stepladders shall not be longer than 20 feet. Single ladders shall not be longer than 30 feet.
2. A two section extension ladder shall not be longer than 60 feet. All ladders of this type shall consist of two sections, one to fit within the side rails of the other, and arranged in such a manner that the upper section can be raised and lowered.
3. Keep all ladders at least ten (10) feet away from power lines.

4. Ladders shall have the correct load capacity for the task and not be loaded beyond the maximum intended load for which they were built nor in excess of the manufacturer's rated capacity. Weight includes the combined weight of the climber and his tools/equipment. Ladders are rated as the following:

Classification ID	Weight Capacity
I-A	Up to 300 lbs
I	Up to 250 lbs
II	Up to 225 lbs
III	Up to 200 lbs

D. Fixed Metal Ladders

1. Ladders shall be constructed to withstand a minimum of 200 pounds
2. All metal rungs shall have a minimum diameter of ¾ inches and wooden rungs shall have a minimum diameter of 1 1/8 inches.
3. Rungs shall not be more than 12 inches apart and shall be uniform throughout the length of the ladder.
4. Rungs shall be a minimum length of 16 inches and provide protection so a foot cannot slip off the end.
5. Rungs shall have a minimum of (7) seven inches between itself and the structure behind it.
6. A fall restraint system must be provided for all fixed ladders greater than (6) six feet in length.
    a) A Cage is required when the fixed ladder is at least 20 feet tall.
    b) Cages on fixed ladders shall not begin at a point less than (7) seven feet or greater than (8) eight feet from the walking surface below the cage.
    c) Cages shall provide a clear width of 15 inches in each direction of the rung's centerline.
    d) Cages shall not extend less than 27 inches, but not greater than 28 inches from the centerline of the rung.
    e) A climbing fall restraint system may be substituted for a ladder cage.

V. REFERENCES

29 CFR 1926.1503

Cal/OSHA T8 CCR 3276

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Centurion Power

HSE MANUAL

HSE 14

Control of Hazardous Energy
Lockout Tagout Policy

Revision 0
6/1/2024

I. SCOPE

1. Centurion Power established this Hazardous Energy Control and Lockout/Tagout Program to ensure that before any employee performs any servicing or maintenance on a machine or equipment where the unexpected energizing, start up or release of stored energy could occur and cause injury, the machine or equipment shall be isolated from the energy source, and rendered inoperative.
2. Included are procedures to place and remove appropriate Lockout devices or Tagout devices to energy isolating devices, and to otherwise disable machines or equipment and to notify personnel in preventing unexpected energizing, startup or release of stored energy.
3. Centurion Power has adopted this policy to cover servicing, inspection and maintenance of machines and equipment in which the unexpected energizing or startup of the machines or equipment, or release of stored energy could cause injury to employees. This policy establishes minimum requirements for the control of such hazardous energy.

II. ASSIGNMENT OF RESPONSIBILITIES

1. The Safety Director is responsible to ensure the program is current and assessments on programs effectiveness are conducted annually.
2. Line managers and Supervisors are responsible to ensure engineering controls, safe work practices and procedures are in place and followed.

III. PLAN IMPLEMENTATION

1. If an energy source can be locked out, this method will be utilized. A “Lockout Device” utilizes a lock, either key or combination, to hold an energy isolating device in a safe position.
2. If an energy source cannot be locked out, a Tagout system will be utilized. A “Tagout Device” is a warning tag (weather and chemical resistant) standardized in size, color, with wording warning of hazardous energy such as: (Do Not Start) (Do Not Open) (Do Not Close) (Do Not Energize) (Do Not Operate).
3. Potential energy may that may require Lockout/Tagout include any source of electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other energy.
4. Lockout or Tagout will be performed only by the authorized employees who are performing the servicing or maintenance and will identity affected person.
    a. Supervisor or an authorized employee will notify affected employees when Lockout or Tagout devices are applied and removed.
    b. Notification will be given before the controls are applied, and after they are removed from the machine or equipment.
5. Centurion Power will provide Lockout and Tagout devices that will be standardized, substantial in strength and used only for isolating, securing, or blocking of machines or equipment from energy sources.

6. Centurion Power shall conduct a periodic inspection of the program at least annually to ensure that the procedure and the requirements of this standard are being followed.

IV. TRAINING

Training will be provided to ensure that the purpose and function of the energy control program is understood by employees and that the knowledge and skills required for the safe application, usage, and removal of the energy controls is acquired by employees. Only employees who may come in contact with energized electrical equipment or stored energy will be trained

1. **Authorized Employee:** Each authorized employee will receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control.
2. **Affected Employee:** Each affected employee will be instructed in the purpose and use of the energy control procedure.
3. **Other Employees:** All other employees whose work operations are or may be in an area where energy control procedures may be utilized, will be instructed about the procedure, and about the prohibition relating to attempts to restart or reenergize machines or equipment which are locked out or tagged out.
4. Employees should be aware that the tagout system and the tags have limitations.
    a. Tags are essentially warning devices affixed to energy isolating devices, and do not provide the physical restraint on those devices that is provided by a lock.
    b. When a tag is attached to an energy isolating means, it is not to be removed without permission of the authorized person responsible for it, and it is never to be bypassed, ignored, or otherwise defeated.
    c. Tags must be in good condition and legible and understandable by all authorized employees, affected employees, and all other employees whose work operations are or may be in the area, in order to be effective.
    d. Tags and their means of attachment must be made of materials which will withstand the environmental conditions encountered in the workplace.
    e. Preferred attachment means is a nylon single use self-locking tie wrap able to withstand 50lbs of force.
    f. Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use.
    g. Additional safety measures such as the removal of an isolating circuit element, blocking of a controlling switch, opening of an extra disconnecting device, or the removal of a valve handle to reduce the likelihood of inadvertent energization should be used during the Tagout process.
5. Retraining will be provided for all authorized and affected employees whenever there is a change in their job assignments, a change in machines, equipment, or processes that present a new hazard, or when there is a change in the energy control procedures.

a. Additional retraining will also be conducted whenever a periodic inspection reveals, or whenever management has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures. Retraining will reestablish employee proficiency and introduce new or revised control methods and procedures.

6. Company will certify that employee training and/or retraining has been accomplished and is being kept up to date. Employee records will contain employee name, dates of training, and who conducted the training.

V. APPLICATION OF ENERGY ISOLATION

1. The following Lockout/Tagout energy control procedure elements and actions shall be done in the following sequence:

   a. **Preparation for Shutdown** - Before an authorized or affected employee turns off a machine or equipment, the authorized employee will have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the method or means to control the energy.

   b. **Machine or Equipment Shutdown** - The machine or equipment will be turned off or shut down using the procedures established for the machine or equipment. An orderly shutdown will be utilized to avoid any additional or increased hazard(s) to employees as a result of the equipment stoppage.

   c. **Machine or Equipment Isolation** - All energy isolating devices that are needed to control the energy to the machine or equipment shall be physically located and operated in such a manner as to isolate the machine or equipment from the energy source(s).

   d. **Lockout or Tagout Device Application** –

      i. Lockout or Tagout devices will be affixed to each energy isolating device by authorized employees.

      ii. Lockout devices, where used, will be affixed in a manner to hold the energy isolating devices in a "safe" or "off" position. Lockout devices shall indicate the identity of the employee applying the device.

      iii. Tagout devices, where used, will be affixed in such a manner as will clearly indicate that the operation or movement of energy isolating devices from the "safe" or "off" position is prohibited.

         a. Where tagout devices are used with energy isolating devices designed with the capability of being locked, the tag attachment will be fastened at the same point at which the lock would have been attached.

         b. Where a tag cannot be affixed directly to the energy isolating device, the tag will be located as close as safely possible to the device, in a position that will be immediately obvious to anyone attempting to operate the device.

   e. **Stored Energy** – Following the application of logout or tagout procedures and devices to energy isolating devices, all potentially hazardous stored or residual

energy must be relieved, disconnected, restrained, and otherwise rendered safe. If there is a possibility of re-accumulation of stored energy to a hazardous level, verification of isolation shall be continued until the servicing of maintenance is completed, or until the possibility of such accumulation no longer exists. Stored or residual energy such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas, steam, or water pressure, etc. must be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.

f. **Verification of Isolation** - Prior to starting work on machines or equipment that have been locked out or tagged out, the authorized employee will verify that isolation and de-energizing of the machine or equipment have been accomplished.

2. Release from Lockout or Tagout

Before employees remove Lockout or Tagout devices and energy is restored to the machine or equipment the following procedures will be followed and actions taken by the authorized employee(s).

a. The machine or equipment - The work area will be inspected to ensure that nonessential items have been removed and to ensure that machine or equipment components are operationally intact.

b. Employees –

i. The work area will be checked to ensure that all employees have been safely positioned or removed.

ii. After Lockout or Tagout devices have been removed and before a machine or equipment is started, affected employees will be notified that the Lockout or Tagout device(s) have been removed.

iii. Removal of Lockout or Tagout Devices - Each Lockout or Tagout device will be removed from each energy isolation point by the employee who applied the device. When the authorized employee who applied the lockout or tagout device is not available to remove it, that device may be removed under the direction of the Supervisor on location by following these procedure steps:

a. Verification by the Supervisor that the authorized employee who applied the device is not at the facility.

b. Making all reasonable efforts to contact the authorized employee to inform him/her that their Lockout or Tagout device has been removed.

c. Ensuring that the authorized employee has this knowledge before he/she resumes work at that facility.

3. Temporary Removal of Lockout Tagout devices

In situations where Lockout or Tagout devices must be temporarily removed and the machine or equipment energized to test or position, the following steps will be followed:

a. Clear the machine or equipment of tools and materials

b. Remove employees from the machine or equipment area

c. Remove the Lockout or Tagout devices as specified

d. Energize and proceed with testing or positioning

e. De-energizing all systems and reapply energy control measures to continue the servicing and/or maintenance.

4. Outside Personnel (Contractors, etc.)

   When contract or service personnel are working for Centurion Power and performing work that requires lockout or tagout procedures to be applied, the Centurion Power location supervisor and the outside employer will inform each other of their respective lockout or tagout procedures. The Centurion Power location supervisor will ensure that his/her employees understand and comply with the restrictions and prohibitions of the outside employer's energy control program. This procedure will be verified and documented by personnel performing it.

5. Group Lockout/Tagout

   a. When servicing and/or maintenance is performed by a crew, craft, department, or other group, they will utilize a procedure which affords the employees a level of protection equivalent to that provided by the implementation of a personal lockout or tagout device.

   b. An authorized employee will have primary responsibility for a set number of employees working under the protection of a group lockout or tagout device (such as an operations lock).

   c. Location supervisors will have responsibility to ensure the status of individual group members with regard to the lockout or tagout of the machine or equipment. Location supervisors will assign overall job-associated lockout or tagout control responsibility to an authorized employee when more than one crew, craft, department, etc. is involved, and to coordinate affected work forces and ensure continuity of protection.

   d. Each authorized employee of the work crews, craft, department, etc. will affix a personal lockout or tagout device to the group lockout device, group lockbox, or comparable mechanism when he or she begins work, and will remove those devices when he or she stops working on the machine or equipment being serviced or maintained. See attachment 1 – Group Lockout/Tagout Plan.

   e. Shift or personnel changes – If a lockout procedure will extend into the following shift, the authorized employee who originally placed the lock will remove it and it will immediately be replaced with the lock of the authorized employee who is to continue the repair or maintenance on that equipment or machine for the following shift.

   f. A Lockout/Tagout Activity Log will be utilized to ensure the continuity of lockout or tagout protection, including provision for the orderly transfer of lockout or tagout device protection between off-going and oncoming employees, to minimize exposure to hazards from the unexpected energization or start-up of the machine or equipment, or the release of stored energy. Documentation will be maintained as to personnel, equipment, and particular Lockout/Tagout

procedures involved in a specific ongoing operation. See attachment 2 – Lockout/Tagout Activity Log.

6. Compliance

Failure to comply with proper Lockout/Tagout procedures is grounds for disciplinary action. Any unauthorized removal of warning tags or lockout devices will be grounds for immediate termination of employment.

VI. REFERENCE

CFR 1910.147

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6/1/2025	6/1/2025	0	Create Document	Tony Asciutto

Attachment 1 – Group Lockout/Tagout Plan

The purpose of this procedure is to ensure that all sources of hazardous energy are isolated from the work area, locked out and tagged, and tested before work begins. The Person-in-charge (Responsible Employee/Worker) is responsible for the safe execution of this procedure and must:

a) Communicate this procedure to all Authorized Employees/Workers;

b) Address concerns of employees who might be exposed, and

c) Ensure that each person understands the hazards and safety related work practices they are to use.

Start Date:	End Date:
Responsible Employee/Worker:	
Work Location or Terminal:	

1) Affected Employees/Workers working under the group lock (attach additional sheet if required):

1.
2.
3.
4.
5.
6.

2) Review drawings, tags, labels, and signs to identify and locate all disconnecting means (attach additional sheet if required):

Description of circuit(s)/equipment to be locked out:
Disconnecting means to be locked:
Sources of stored energy:

3) Notify all Affected Employees/Workers (persons in the area of the equipment and operators of equipment).

4) Shut machine or equipment down using normal stopping procedures and relieve stored energy.

5) De-activate the energy isolating device and apply your lock to the disconnecting device. (For electrical disconnect switches test for absence of voltage prior to locking).

6) Method used to dissipate or restrain stored energy (attach additional sheet if required):

Electrical/capacitors – grounding:	
Springs/elevated machines – blocking	
Hydraulic/pneumatic – bleeding	
Other:	

7) Verify equipment is disconnected by operating controls or by testing the equipment will not operate (make sure no personnel will be exposed during this step). **Caution:** Return operating controls to neutral or off position.

Restoring Equipment to Service

1. Visually verify that all job/tasks are complete
2. Check area to ensure that tools and nonessential items are removed, housekeeping appropriate
3. Check all guards and covers installed properly, grounding equipment removed, and equipment is operationally intact
4. Check that all controls are in neutral position
5. Verify status of all employees working under group lockout (safely positioned or removed)
6. Notify all personnel involved in the job/task that work is complete and system will be returned to service
7. Remove lockout devices and notify Affected Employees/Workers that work is complete and equipment is ready for use

Attachment 2 – Lockout/Tagout Activity Log

Lockout/Tagout Log						
List who applied the LOTO device Employee Name:	List system or equipment is being isolated.	Location LOTO was applied	Configuration of switch or valve, on/off, blinded or removed	Date & time applied	Date & time removed	Name of employee removing device

Signature of Supervisor ensuring all devices have been removed: _____Date:_____

Centurion Power

HSE MANUAL

HSE 15

Hazard Identification Risk Assessment
JSA Policy

Revision 0
6/1/2024

I. SCOPE

Centurion Power is committed to providing a safe and healthy work environment for our employees.

The purposes of this policy is to provide guidelines for identifying, assessing and controlling workplace hazards; to ensure the potential hazards of new processes and materials are identified before they are introduced into the workplace; to identify the jobs/tasks which require risk assessment.

II. RESPONSIBILITIES

Centurion Power must assess a work site and identify existing or potential hazards before work begins at the work site or prior to the commencement of a new work site

III. HAZARD AND RISK IDENTIFICATION

A. The hazard identification process is used for routine and non-routine activities as well as new processes, changes in operation, products or services as applicable.

B. The Project Manager shall conduct a baseline worksite hazard assessment which is a formal process in place to identify the various tasks that are to be performed by Centurion Power employees, and to identify potential hazards. The results are included in a report of the results of the hazard assessment and the methods used to control or eliminate the hazards identified. The hazard assessment report must be signed and have the date on it.

C. Inputs into the baseline hazard identification include, but are not limited to:

1. Scope of work
2. Legal and other requirements
3. Previous incidents and non-conformances
4. Sources of energy, contaminants and other environmental conditions that can cause injury
5. Walk through of work environment

D. Hazards identifications (as examples) are to include:

1. Working Alone
2. Thermal Exposure
3. Isolation of Energy
4. Hearing Protection
5. Musculoskeletal Disorders
6. Bloodborne Pathogens
7. Confined Spaces
8. Driving
9. General Safety Precautions
10. Any established policy or procedure by Centurion Power
11. Any other site specific work scope.

E. Centurion Power has a formal process for identifying potential hazards. Processes are in place to identify potential hazards by the use of JSA's, JHA's, facility wide or area specific analysis/inspections.

F. All identified hazards are assessed for risk and risk controls are assigned on the Hazard Assessment Form (Attachment A) for that specific hazard.

G. Employees and/or sub-contractors are actively involved in the hazard identification process. The Centurion Power policy provides processes to ensure employees and/or sub-contractors are actively involved in the hazard identification process and hazards are reviewed with all employees concerned.

H. Employees are trained in the hazard identification process. Employees will be trained in the hazard identification process including the use and care of proper PPE.

I. Unsafe hazards must be reported immediately and addressed by the supervisor. The supervisor discusses the worksite hazard assessment with employees at the respective work location.

J. **Review of Hazard Assessment:** Existing worksite hazard identifications are formally reviewed annually or repeated at reasonably practicable intervals to prevent the development of unsafe and unhealthy working conditions. The Hazard Assessment Form will be updated when new tasks are to be performed that have not been through the risk assessment process. This could be when a work process or operation changes, before the construction of a new site or when significant additions or alterations to a job site are made.

K. The respective supervisor or project manager will make the changes as additional hazards are introduced into the work place in order to revise planning and assessment needs.

IV. RISK ASSESSMENT

A. Hazards are classified and ranked based on severity. On the Hazard Assessment form, the identified hazards are classified/prioritized and addressed based on the risk associated with the task. (See the risk analysis matrix outlining severity and probability).

CONSEQUENCE					PROBABILITY				
					A	B	C	D	E
Severity	People	Assets	Environment	Reputation	Not Done	Rarely	Once a week	Several Times in a Week	Multiple Times in a Day
0	No health effect	No damage	No effect	No impact					
1	Slight health effect	Slight damage	Slight effect	Slight impact					
2	Minor health effect	Minor damage	Minor effect	Limited impact					
3	Major health effect	Localized damage	Localized effect	Considerable impact					
4	Single fatality	Major damage	Major effect	National impact					
5	Multiple fatalities	Extensive damage	Massive effect	Global impact					
Key	Manage for continuous improvement (Low)			Incorporate risk reduction measures (Medium)				Intolerable (High)	

V. RISK CONTROLS/METHODS

The following describes how identified hazards are addressed and mitigated:

1. Risk assessed hazards are compiled with and addressed and mitigated through dedicated assignment, appropriate documentation of completion, and implemented controls methods including engineering or administrative controls and PPE required into the worksite hazard assessment of the site specific HSE plan. No work will begin before the worksite assessment is completed. Additionally, no risk assessed as High (Intolerable) shall be performed.
2. If an existing or potential hazard to workers is identified during a hazard assessment centurion Power must take measures to eliminate the hazard, or if elimination is not reasonably practicable, control the hazard. If reasonably practicable, Centurion Power must eliminate or control a hazard through the Hierarchy of Controls Method through the use of the following in order.
    a) Engineering controls: Using engineering practices to remove the hazard from the work place.
    b) If a hazard cannot be adequately controlled using engineering controls, Centurion Power must use administrative controls that control the hazard to a level as low as reasonably achievable.
    c) If the hazard cannot be adequately controlled using engineering and/or administrative controls, Centurion Power must ensure that the appropriate personal protective equipment (PPE) is used by workers affected by the hazard.
    d) Centurion Power may use a combination of engineering controls, administrative controls, and personal protective equipment if there is a greater level of worker safety because a combination is used.

B. **Emergency Control of Hazards:** Only those employees competent in correcting emergency controls of hazards may be exposed to the hazard and only the minimum number of competent employees may be exposed during hazard emergency control.

C. **Certification of Hazard Assessment:** The Project Manager completes and signs the certification of hazard assessment for the worksite hazard assessment (also see PPE Program HS C010) and includes it within the site specific HSE plan.

D. **Job Safety Analysis (JSA):** Job Safety Analyses (JSA) prevents accidents and workplace illnesses by improving employee skills and awareness through an organized process. A JSA is an evaluation tool used to identify potential accidents or hazards and then implement safe job procedures.

E. **Site Specific HSE Plan (SSSP):** Each work location has a site specific HSE plan. Each employee reporting to a location shall receive a documented orientation from an Centurion Power that includes the SSSP for that site. The SSSP contains the Centurion Power Health and Safety Policy, site specific safety requirements as well as a PPE matrix and a signed site specific worksite hazard assessment for that location, which the Centurion Power has a responsibility to provide.

VI. REVIEW PROCESS

A. The hazard assessment program will be reviewed to ensure no new hazards derived from the corrective measures.

VII. JOB SAFETY ANALYSIS

A. **General:** The JSA is a systematic method of identifying hazards and control measures to safely perform a specific job or task. The process involves breaking down a particular job/task into a series of simple steps. In each of these steps, hazards are identified and documented using Appendix A. Appendices B and C are examples of JSAs. After these hazards are identified, then solutions and recommendations for the prevention of accidents shall also be documented in the analysis.

B. **Job Safety Analysis Procedures**

1. **Step 1: Select the Job:** In selecting jobs to be analyzed and in establishing the order of analysis, the following factors should be considered. They are listed in order of importance.

    a) Occurrence of injuries: Jobs that have produced an incident or accident trend, or death, during the past three years shall be analyzed.

    b) Frequency of Accidents: Jobs that repeatedly produce accidents (trends) are candidates for a JSA. The greater the number of accidents associated with the job, the greater its priority for a JSA. Subsequent injuries indicate that preventive action taken prior to their occurrence was not successful.

    c) Potential Severity: Some jobs may not have a history of accidents but may have the potential for severe injury or property damage. The greater the potential severity of risk, the greater its priority to complete a JSA.

    d) New Jobs or a Change in a Job: New operations created by changes in equipment or processes obviously have no history of accidents, but their accident potential should be fully appreciated. A JSA shall be made on every new job with potential hazards. Analysis should not be delayed until an accident or incident occurs.

    e) On Construction Sites: Due to the ever changing dynamics of a construction site a daily JSA should be completed to identify the changing hazards of the work site. Each JSA should reflect the current task and hazards associated with this task.

2. **Step 2: Perform the analysis:** The supervisor responsible for the job/task should perform the JSA using the JSA. The supervisor shall conduct the JSA with the help of employees who regularly perform the task. The job being analyzed should be broken down into a sequence of tasks that describe the process in detail. Avoid two common errors:

    a) Making the breakdown too detailed so that an unnecessarily large number of steps result

    b) Making the job breakdown so general that the basic steps are not distinguishable

    As a rule, the JSA should contain less than 12 steps. If more steps are needed, the job should be broken into separate tasks.

    Select an experienced, capable, and cooperative person who is willing to share ideas. They should be familiar with the purpose and method of a JSA. Reviewing a completed JSA before conducing one will help illustrate the terminology and procedure to be followed.

    Review the breakdown and analysis with the person who performed the job to ensure agreement of the sequence and description of the steps. Variations of routine procedure should also be analyzed. The wording for each step should be with an action words such as “remove,” “open,” or “lift.”

3. **Step 3: Identify Hazards:** Hazards associated with each step are identified. To ensure a thorough analysis, answer the following questions about each step of the operation:

a) Is there a danger of striking against, being struck by, or otherwise making injurious contact with an object?

b) Can the employee be caught in, by, or between the objects?

c) Is there a potential for a slip or trip?

d) Can someone fall on the same level or to another?

e) Can employees strain themselves by pushing, pulling, lifting, bending, or twisting?

f) Is the environment hazardous to one's health (toxic gas, vapor, mist, fumes, dust, heat, or radiation)? Using the JSA form, document hazards associated with each step. Check with the employee who performed the job and others experienced in performing the job for additional ideas. A reliable list may be developed through observation and discussion.

4. **Step 4: Develop Solutions:** The final step in job safety analysis is to develop a safe, efficient job procedure to prevent accidents. The principal solutions for minimizing hazards that are identified in the analysis are as follows:

a) Find a new way to do the job. To find an entirely new way to perform a task, determine the goal of the operation and analyze the various ways of reaching this goal. Select the safest method. Consider work saving tools and equipment.

b) Change the physical conditions that create the hazard. If a new way to perform the job cannot be developed, change the physical conditions (such as tools, materials, equipment, layout, location) to eliminate or control the hazard.

c) Change the work procedure to eliminate the hazard. Investigate changes in the job procedure that would enable employees to perform the task without being exposed to the hazard.

d) Reduce the frequency of its performance. Often a repair or service job has to be repeated frequently because of another condition that needs correction. This is particularly true in maintenance and material handling. To reduce the frequency of a repetitive job, eliminate the condition or practice that result in excessive repairs or service. If the condition cannot be eliminated, attempt to minimize the effect of the condition.

Reducing the number of times a job is performed contributes to safer operations only because the frequency of exposure to the hazard is reduced. It is, of course, preferable to eliminate hazards and prevent exposure by changing physical conditions or revising the job procedure or both.

In developing solutions, general precautions such as "be alert," "use caution," or "be careful" are useless. Solutions shall precisely state what to do and how to do it. For example, "make certain the wrench does not slip or cause loss of balance" does not tell how to prevent the wrench form slipping. A good recommendation explains both "what" and "how". For example, "set wrench jaws securely on the bolt. Test its grip by exerting slight pressure on it. Brace yourself against something immovable, or take a solid stance with feet wide apart, before exerting slow steady pressure." This recommendation reduces the possibility of a loss of balance if the wrench slips.

If a job or process is changed dramatically, it should be discussed with all personnel involved to determine the possible consequences of the changes. Such discussions check the accuracy of the JSA and involve personnel in an effort to reduce job hazards.

5. **Step 5: Conduct a follow up analysis:** No less than once per month, each supervisor should observe employees as they perform at least one job for which a JSA has been developed. The purpose of these observations is to determine whether or not the employees are doing the jobs in accordance with the safety procedures developed. The supervisor should review the JSA before doing the follow-up review to reinforce the proper procedures that are to be followed.

6. **Step 6: Use of the Job Safety Analysis:** The JSA provides a learning opportunity for the supervisor and employee. Copies of the JSA should be distributed to all employees who perform that job. The supervisor should explain the analysis to the employees and, if necessary, provide additional training.

   New employees or employees asked to perform new tasks must be trained to use the safe and efficient procedures developed in the JSA. The new employee should be taught the correct method to perform a task before dangerous habits develop, to recognize the hazards associated with each job step, and to use the necessary precautions to avoid injury or accidents.

   Jobs that are performed infrequently require additional effect to minimize accident potential. Pre-job instruction addressing the points listed on the JSA will serve as a refresher to employees who may have forgotten some of the hazards in performing the task and the proper procedure to be used to avoid these hazards.

   Finally, the JSA is an incident/accident investigation tool. When incidents/accidents occur involving a job for which a JSA has been performed, the analysis should be reviewed to determine if proper procedures were followed or if the procedures should be revised.

7. **Step 7: Recordkeeping for Job Safety Analysis**: Documentation is an important part of performing a JSA. Records must be uniform and consistent so that many people can understand and use this information. JSA forms should be maintained in the department creating the documents and should be readily accessible. An index identifying the job/task, the date the JSA was completed, and the date the analysis was revised should be maintained.

VIII. TRAINING

A. **Initial Training**

1. All new employees will be trained on how the JSA works and it purpose.
2. New employees or employees who are asked to perform new jobs/tasks shall be trained to use the procedures developed in the JSA.

B. **Refresher Training**

1. Supervisors/PIs will perform and document employee training on completed/existing JSAs at least annually.
2. Jobs that are performed infrequently require additional effort to minimize accident potential. Pre-job instruction will serve as a refresher so that employees may remember and avoid any hazards.

IX. RECORDKEEPING

A. Supervisors: Maintain a copy of employee training records for a minimum of six years.

1. JSA forms will be maintained and readily accessible.

X. REFERENCES

A. OSHA Regulation 29 CFR 1910.132;

B. Job Hazard Assessment OSHA Publications Handbook 3071;

REVISION DATE	REVIEW DATE	REVISION NUMBER	REVISION COMMENTS	AUTHOR
5/1/2025	6/1/2024	0	created document	Tony Asciutto

ATTACHMENT 1

Hazard Identification and Risk Assessment Form

This hazard Identification and risk assessment is for _____Location.

Date of Assessment: _____ Assessment conducted by _____ .

List Task being assessed:

Task Steps	Risk Level	Hazards Identified	Engineering Controls	Administrative Controls	PPE or Barriers
1.					
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					

Note:

1. Hazards written in should be the ones directly associated with the particular step of the task.
2. Engineering controls are listed if an engineering solution can eliminate exposure to the hazard.
3. Administrative controls are Policies, procedures or work restrictions set by management.
4. PPE is the last line of defense and must list specific type used for the task step.

ATTACHMENT 2

JSA Form

This JSA is valid only for the work, date, and time specified. This JSA shall be posted at the work site during the work activity. If the terms noted change, work must be stopped and the JSA reissued. Fire and/or Emergency Alarm automatically invalidate the JSA. When the work is completed or the JSA expires, return the JSA to the supervisor marked "Complete."

Project Name and Number: _____ Date: _____

Location: _____ Supervisor: _____ Start Time: _____ End Time: _____

Description of Work: _____

A. Employees Task Trained: ❒ YES ❒ NO ❒ N/A

What Equipment will be used:

_____

_____

_____

_____

D. Permits Required (displayed and properly signed):

High Wall Permit	❒Yes	❒No	Excavation	❒Yes	❒No
LOTOTO	❒Yes	❒No	Confined Space	❒Yes	❒No
Line Locate	❒Yes	❒No	Hot Work	❒Yes	❒No
Open Hole	❒Yes	❒No	HDPE	❒Yes	❒No

B. Emergency Assembly Point:

Primary: _____

Secondary: _____

Weather Conditions: _____

E. Is there a Safety Plan for this project? ☐ Yes ☐ No ☐ N/A

F. Is there special training required for this project? _____

C. Safety Checklist Requirements: (See Page 2)

Access	❒Yes	❒No
Electrical	❒Yes	❒No
Excavation	❒Yes	❒No
Emergency equipment locations	❒Yes	❒No
Hazards (Body)	❒Yes	❒No
New Worker	❒Yes	❒No
Pipeline	❒Yes	❒No
Hazards (Environmental)	❒Yes	❒No
Equipment/Lifting	❒Yes	❒No
Overhead Work	❒Yes	❒No
Process/Equipment	❒Yes	❒No
Tools	❒Yes	❒No
Personal Protective equipment	❒Yes	❒No
Stand-By Person	❒Yes	❒No
Welding/Burning	❒Yes	❒No
Hazards	❒Yes	❒No
Bodies Of Water	❒Yes	❒No

G. Potential hazards:

_____

_____

H. Actions taken to eliminate hazards:

_____

_____

_____

_____

_____

I. Tools, materials, and safety equipment required:

_____

_____

J. Signatures showing acceptance of this safe task plan:

Please print & sign your names below: (Foreman & Crew)

_____ _____

_____ _____

_____ _____

_____ _____

Check off and discuss all pertinent items from the attached checklist that apply to the scope of work being performed. The items that are checked shall be discussed with the crew performing the work to ensure that all understand the safety requirements necessary to safely perform this task.

ACCESS
- ☐ Scaffold (properly inspected) Date: _____
- ☐ Scaffold (complete handrails, toe boards, solidly decked)
- ☐ Ladder (condition, secured, placement)
- ☐ Walkways and Handrails
- ☐ Fall protection

ELECTRICAL
- ☐ Lockout/tagged (Try start/stop switch)
- ☐ Color code current
- ☐ Disconnected (if required)
- ☐ Properly grounded tools
- ☐ Good condition
- ☐ Trained

EXCAVATION
- ☐ Properly Shored/Sloped or Benched
- ☐ Escape Ladder provided
- ☐ Competent Person on site
- ☐ Entry Permit required soil
- ☐ Typed/Documented
- ☐ Daily Inspection (Documented)
- ☐ Barricaded properly

EMERGENCY EQUIPMENT LOCATIONS
- ☐ Fire Hoses/Hydrants located at _____
- ☐ Fire Extinguishers located at _____
- ☐ Safety Shower located at _____
- ☐ Eye Wash located at _____
- ☐ Medical located at _____
- ☐ Emergency phone numbers _____

HAZARDS (Body)
- ☐ Fall potential
- ☐ Pinch points
- ☐ Electrical Shock
- ☐ Housekeeping
- ☐ Slip/Trip (Cords, Pipe, etc.)
- ☐ Flying particles
- ☐ Thermal burns
- ☐ Sharp objects

NEW WORKER
- ☐ Site orientation
- ☐ Buddy assigned

HDPE
- ☐ Pipe pulling permit
- ☐ Tools for pipe size
- ☐ Unloading checklist
- ☐ Pipe pulling equip
- ☐ Rigging
- ☐ Exemptions
- ☐ Pipe chocked
- ☐ Generator resistivity
- ☐ Data logger
- ☐ Yellow marker flags
- ☐ Safe area for HDPE operations

HAZARDS (Environmental)
- ☐ Airborne particulate (Fumes, Mists)
- ☐ Heat stress (Hot/Cold Surfaces)
- ☐ Materials adequate
- ☐ Lighting
- ☐ Noise
- ☐ Access/Egress
- ☐ Radiation from radiography
- ☐ Radiation from other source

EQUIPMENT/LIFTING
- ☐ Operator Certified/Licensed
- ☐ Good equipment condition
- ☐ Backup warning device
- ☐ Forklift
- ☐ Man lift
- ☐ Boom Truck
- ☐ Crane
- ☐ Load charts
- ☐ Position hooks
- ☐ Proper rigging
- ☐ Chain fall
- ☐ Overhead lines
- ☐ Personnel basket permit

OVERHEAD WORK
- ☐ Barricades/Tags
- ☐ Signs
- ☐ Hole cover handrail
- ☐ Grating secured
- ☐ Fall protection in place
- ☐ Life lines properly installed/inspected

PROCESS/EQUIPMENT
- ☐ Valves blocked in tags hung
- ☐ Equipment cleared
- ☐ Blinds installed and tagged
- ☐ Blind list
- ☐ HazCom summary
- ☐ LOTOTO complete

TOOLS
- ☐ Current inspection
- ☐ Proper tools
- ☐ Good tools condition
- ☐ Tool use instructions
- ☐ Color code current

PERSONAL PROTECTIVE EQUIPMENT
- ☐ Hardhat
- ☐ Safety glasses
- ☐ Mono goggles
- ☐ Ear protection
- ☐ Face Shield/Burning Goggle
- ☐ Proper type respirator
- ☐ Fresh air
- ☐ Gloves
- ☐ Safety-Toe shoes
- ☐ Metatarsal guards
- ☐ Rubber boots
- ☐ Other safety footwear
- ☐ Fire retardant clothing
- ☐ Slicker suit
- ☐ Acid suit
- ☐ Safety Harness/Lanyard
- ☐ H_2S Monitor
- ☐ Life Jacket
- ☐ Fall Protection
- ☐ Other (List): _____

STAND-BY PERSON
- ☐ Confined space entry (Hole-Watch)
- ☐ Spotter
- ☐ Fire watch
- ☐ Attendant traffic
- ☐ Flagman

WELDING / BURNING
- ☐ Spark Arrestors
- ☐ Combustibles Spark
- ☐ Containment Shields
- ☐ Grounding
- ☐ Water Hose
- ☐ Fire Extinguishers (Inspected/Nearby)
- ☐ Fire Blanket
- ☐ Cylinders Secured
- ☐ Cylinder Caps in Place

HAZARDS
- ☐ Hygiene
- ☐ Chemical burns
- ☐ Eyes
- ☐ Flammable
- ☐ Inhalation
- ☐ Skin contamination

COMMUNICATION
- ☐ Radio

MISC. TOPICS: _____

Forman/On Site Safety Personnel
Time/Date

Centurion Power

HSE MANUAL

HSE 16

Health and Safety Disciplinary Policy

Revision 0
6/1/2024

I. SCOPE

At Centurion Power the safety and health of our employees is the first consideration. This policy is to communicate disciplinary measures taken against employees found to be in violation of the company Health and Safety program.

It is the responsibility of every employee to follow all safety rules at all times. It is the responsibility of every employee to inform their immediate supervisor of any safety hazards noted in the workplace, and to warn other employees of those hazards.

Every employee is authorized and required to stop any activities which may endanger the health and safety of any person on or around Centurion Power operations.

II. ENFORCEMENT OF SAFETY POLICIES

1. The compliance of all employees with Centurion Power Safety and Health Program is mandatory and shall be considered a condition of employment. All safety rules, procedures, and plans in effect are to be followed as specified in the safety program. Employees found to be in violation of Company safety policy may be subject to contents of this policy.
2. Employees who are in a position of a management, supervisory or a foreman capacity may initiate disciplinary action against any employee found to be in violation of Company policy. Not following verbal or written safety procedures, guidelines, rules, horse play, failure to wear selected PPE, abuse of selected PPE, and etc. constitutes a safety violation. This list id not all inclusive and the determination of what constitutes a safety violation will be left up to the discretion of onsite supervision and/or management.
3. Periodic safety inspections of the workplace and equipment will be undertaken to ensure that all personnel, including supervisory positions, are demonstrating the required commitment to safety. A general neglect of safe work procedures, practices, and requirements in the workplace, or neglect of equipment safety, will be viewed as a lack of supervisory enforcement of safety policy and the appropriate supervisor/management personnel will be subject to the same disciplinary procedures described below.

III. SAFETY COMPLIANCE PROGRAMS

The following programs will be utilized to ensure employee compliance with the safety program and all safety rules:

1. Training Programs

   The importance of safe work practices and the consequences of failing to abide by safety rules will be covered in the New Employee Safety Orientation and at Tailgate/Toolbox Safety Training. This will help ensure that all employees understand and abide by Centurion Power policies.

2. Retraining

   Employees that are observed performing unsafe acts or not following proper procedures or rules will be retrained. Retraining for failure to follow safety guidelines will be documented and placed into the employee file. If multiple employees are involved, additional safety meetings will be held.

3. Safety Incentive Programs

   Although strict adherence to safety policies and procedures is required of all employees, Centurion Power may choose to periodically provide recognition of safety-conscious employees and jobsites without accidents through a safety incentive program.

4. Disciplinary Action

   The failure of an employee to adhere to safety policies and procedures established by Centurion Power can have a serious impact on everyone concerned. An unsafe act can threaten not only the health and well-being of the employee committing the unsafe act but can also affect the safety of his/her coworkers and/or customers. Accordingly, any employee who violates any of Centurion Power safety policies will be subject to disciplinary action.

When an employee is noted violating safety policies and procedures the employees' immediate supervisor will meet with employee(s) to discuss the infraction and inform individual(s) of the rule or procedure that was violated and the corrective action to be taken.

Note: Failure to promptly report any on-the-job accident or injury, on the same day as occurrence, is considered a serious violation of Centurion Power Code of Safe Practices. Any employee who fails to immediately report a work-related accident or injury, no matter how minor shall be subject to disciplinary action.

IV. DISCIPLINARY ACTIONS

The following outlines the disciplinary measures which may be taken against employees found to be in violation.

1. Violations of safety rules and standard safe practices as outlined in Job Safety Analysis are to be considered equal to violations of other Company policy. Discipline for safety violations will be administered in a manner that is consistent with Centurion Power system of discipline. If, after training, violations occur, disciplinary action will be administered.
2. Examples of how the progression of discipline should be carried out is as follows:
   a. Verbal warning - Documented, including date and facts on the Employee Corrective Action Form (Attachment 1). Add any pertinent witness statements. Restate the policy and correct practice(s).
   b. Written warning – Same as verbal warning with retraining as to how to correct behavior.
   c. Written warning with suspension – Must be approved through HR Director prior to issuing suspension.
   d. Termination - Must be approved through HR Director prior to the termination.
3. Centurion Power system of progressive discipline policy is a guideline for discipline. Centurion Power has the discretion to modify as needed the progression of discipline. The final determination of what constitutes a safety violation will be left up to the discretion of onsite supervision, the Safety Director and/or Director of Human Recourses.
4. Any discipline that requires more than a written warning must be approved by the Director of Human Recourses. As in all disciplinary actions, each situation is to be carefully evaluated and investigated. The particular step taken in the disciplinary process will depend on the severity of the violation, employee history, and regard to safety. Supervisors should consult with the Corporate Office/Human Resources, if there is any question about whether or not disciplinary action is justified. Employees may be terminated immediately for willful or extremely serious violations.

V. MANAGEMENT DISCIPLINARY REVIEW

Some employee disciplinary actions may require review by the Management Disciplinary Review team. This may be made up of the Employee's immediate supervisor, the Project Manager, VP, Safety Director, Director of Human Resources, and any others with knowledge or experience in the issues to be discussed. The Management Review team will evaluate the issues involved, recommend disciplinary actions, and recommend corrective actions.

Note: Consistency in the enforcement of safety rules shall be exercised at all times.

REVISION DATE	REVIEW DATE	REVISION NUMBER	REVISION COMMENTS	AUTHOR
6/1/2025	6/1/2025	0	New Document	Tony Asciutto

Attachment 1

Employee Corrective Action Form

Employee Name: _____ Date: _____

Job Title: _____ Supervisor _____

Level of Corrective Action			
Verbal Warning ❒	Written Warning ❒	Suspension ❒	Termination ❒

Facts:	
Objective:	
Solution:	
Action/Comments:	
Employee Comments:	

I acknowledge that the above unsatisfactory performance/behavior has been discussed with me. I understand that either failure to improve my performance/behavior or additional incidence(s) of any unsatisfactory performance or behavior may result in further corrective action, up to and including recommendation for termination.

Employee Signature:		Date:	
Supervisors Signature:		Date:	
HR approval:		Date:	

A copy of this corrective action will be placed in your personnel file for reference.

SUPERVISOR INSTRUCTIONS

Below are guidelines for using the Employee Corrective Action Form.

When documenting corrective action, it is helpful to adhere to the following guidelines:

- Facts - List only facts, not opinions. Give concrete examples, when possible, to document the behavior.
- Objectives - What is the desired outcome? What do you expect? You may want to cite a portion of the job description or a policy.
- Solutions - How do you suggest that he/she improve their performance? Does the employee have any suggestions? You may offer additional training, review of procedures, etc.
- Action - Tell the employee in writing that he or she is receiving a warning, suspension, etc. and set a date to review his or her progress towards obtaining the goals set.

Directions for Submitting the Corrective Action Form

The employee must sign the Corrective Action form to acknowledge receipt. If the employee refuses to sign, write “refused to sign” and sign your name as a witness.

In the event of suspension affecting pay or termination, an Employee Corrective Action form must be completed and submitted to the HR Director for approval prior to the execution of a suspension or termination.

The supervisor should give a copy of the signed document to the employee and send the original to the Human Resources Department in a sealed envelope. The Corrective Action will be placed in the personnel file.

Centurion Power

HSE MANUAL

HSE 17

Driver Safety Policy

Revision 0
6/1/2024

I. SCOPE

1. Centurion Power has adopted this policy for Driver Safety to ensure the safety of employees. Many Company operations are conducted in remote locations and require driving to and from locations. This Policy is to ensure the safe operation of company vehicles.
2. Drivers of Company Commercial vehicles are also required to follow Department of Transportation (DOT) requirements as well as other Centurion Power policies and procedures for the operation of large commercial vehicles.
3. The Health and Safety Director is responsible for ensuring that the following policy for control is updated and audited for effectiveness. Supervisors/Crew Chiefs are responsible to ensure employees are trained and personal protective equipment and safe work practices are enforced.

II. DRIVER QUALIFICATION

1. Centurion Power will only allow authorized employees to drive a motor vehicle in the course and scope of the work to be performed, or operate a company owned vehicle.
2. Each driver will be appropriately assessed, licensed, and trained to operate the company vehicle. The driver's license of each driver will be valid and kept current.
3. Authorized drivers will be prohibited from operating a motor vehicle while under the influence of any of the following that might impair their driving skills:
    a. Alcohol
    b. Illegal drugs
    c. Prescription or over the counter medications - without prior approval
4. Authorized drivers will report to the appropriate personnel any of the following:
    a. Collision
    b. Traffic violation, or
    c. Near miss incident
5. Seat belts will be worn by all occupants at all times whenever the vehicle is in motion.

III. VEHICLE REQUIREMENTS

1. The company vehicle must be fit for the purposes intended, and will be maintained in a safe working order. Operators of company vehicles will ensure that required regular maintenance is conducted in a timely manner. Operators will inspect vehicles prior to use. Any vehicle issue that could affect the safe operation must be corrected prior to use.
2. The following items should be visibly inspected prior to using a Company vehicle:
    a. Tire Pressure
    b. Oil Level
    c. Lights
    d. Windshield
    e. Mirrors
3. When transporting loads, the load will be secured, and will not exceed the manufacturers load specifications, or the legal limits for the vehicle.

IV. SAFE DRIVING PRACTICES

1. General driving requirements

   All authorized drivers will follow safe driving practices and safe driving behaviors to include but not limited to:

   a. Personal electronic devices such as Cell phone, Table lets, etc. use is prohibited while driving. Hands-free devices are an alternative. Drivers should pull over in a safe location with the vehicle parked before using a cellphone.

   b. Drivers shall not text or send Emails while driving company vehicles.

   c. Drivers shall not use laptops or tablets while driving.

   d. Employees should refrain from eating or drinking while driving.

   e. Do not exceed the posted speed limit.

   f. Maintaining a safe distance between other vehicles.

   g. Do not exceed the occupant capacity of the vehicle.

   h. Drivers should plan the safest route to their destination in advance.

   i. Drivers should take regular breaks when driving long distances and should not drive more than 14 hours in a day.

   j. All tools, luggage or other materials carried in the passenger compartment shall be properly secured.

   k. Employees are expected to observe all traffic regulations including posted speed limits. Remember, speed limits are set for ideal conditions and must be adjusted according to driving conditions.

   l. Drivers must be licensed, trained and medically fit to operate the vehicle.

   m. Drivers shall report to their supervisor any medical, physical, or psychological condition that would impair his/her ability to safely operate a vehicle.

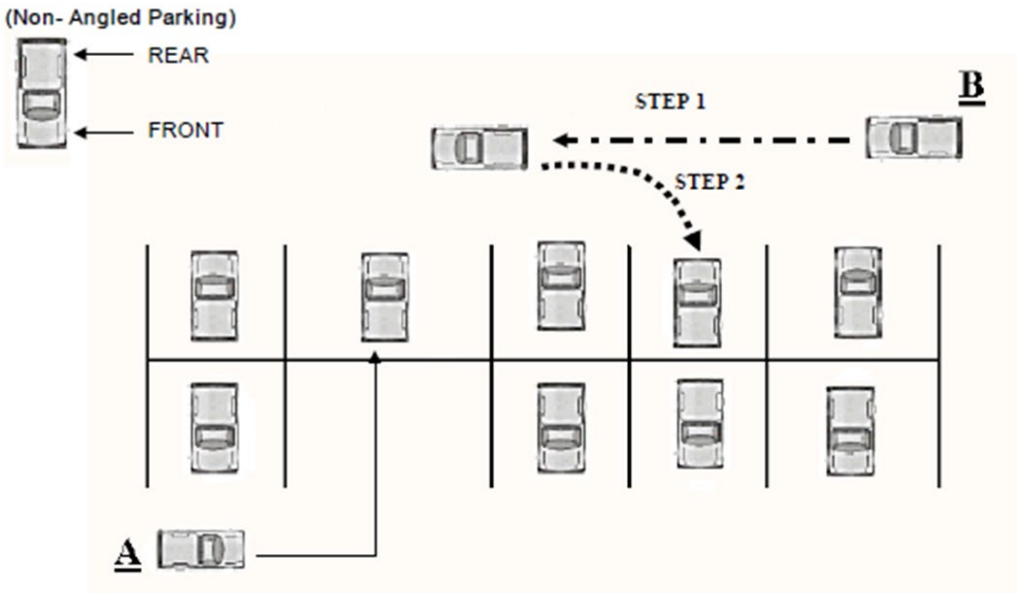
   n. Drivers shall maintain a valid driver's license and inform their immediate supervisor of any restrictions that may be a result of traffic violations or driving citations.

2. Emergency Equipment

   a. Each company owned truck should have at all times a fire extinguishers, first aid kits, and Safety manual.

3. MSHA sites require all vehicles not parked in a paved parking lot should be parked in a parking ditch, against a berm, or chocked with the parking brake set.

4. Backing in parking or first move forward when parking a vehicle. Upon arrival a drivers objective must be to legally park in a position where their first move upon departure will be forward. It is the responsibility of the vehicle operator to make a thorough assessment of the area before moving the vehicle. When possible, a spotter should be used to prevent an incident. Examples of parking or first move forward.



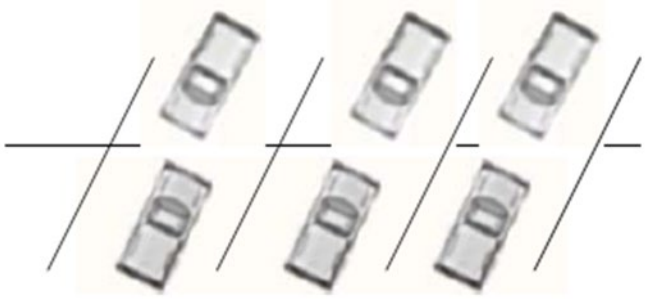
a. (As illustrated at **A**) If possible, pull straight into a non–angled parking space so that you can move forward when you leave instead of having to back out into traffic.

b. (As illustrated at **B**) As a second alternative, back into a non-angled parking space so that you can move forward when you leave instead of having to back up into traffic. The suggested method:

   i. First drive past the parking space you intend to park in to observe space is clear of any obstructions.

   ii. Proceed to back in parking space slowly while looking back and periodically using all mirrors. Utilize a person to assist you back in when available.

c. Angled Parking



NOTE: The "First Move Forward" technique cannot be practiced in Angled Parking Lots.

V. MANAGEMENT DISCIPLINARY REVIEW

1. Organization and Responsibilities

   a. Management will implement the Fleet Safety Policy in their areas of responsibility, establish measurement objectives to comply with this policy, provide assistance and the resources necessary to implement and maintain this policy.

   b. Supervisors will be responsible for taking appropriate action to manage high-risk drivers as defined by this program.

   c. Supervisors shall investigate, complete all reports, and verify that a drug and alcohol screen has been done on employees involved in accidents or property damage involving an Centurion Power vehicle.

d. The Corporate Safety Department will revise and distribute changes to the Fleet Safety Policy to managers, supervisors, and drivers as necessary and maintain appropriate records.

e. Employees will drive a motor vehicle in a safe manner as explained under the section titled, “Driver Safety Requirements”, maintain a valid driver license and meet minimum insurance requirements on personal vehicles used in company business, and maintain assigned vehicles according to established maintenance standards.

2. Vehicle Use

   a. Employees authorized by their supervisors will be permitted to operate Centurion Power vehicles that are not regulated under DOT Standards.

   b. Any employee using a company vehicle for personal use will be responsible for any necessary repairs to the Centurion Power vehicle, other vehicles, liability and medical expenses for themselves and others if they are involved in an accident.

   c. No one, other than Centurion Power employees shall be allowed to drive company vehicles. This applies to spouses and family members.

   d. Only employees with the appropriate Commercial Driver License (CDL), who have been included into the Federal Motor Carriers Safety Administration (FMCSA) recordkeeping program, will be permitted to drive a Commercial Motor Vehicle (CMV) over 26,001lbs.

   e. Employees that are involved in an accident and/or receive a citation, no matter how minor, shall report it immediately to their supervisor. Disciplinary action will be taken for employees not reporting accidents and/or incidents.

   f. Vehicle use shall not be used outside of the normal design of the vehicle.

3. Driver Selection

   a. Management will review Motor Vehicle Records (MVR), driving performance, and work experience through previous employers, reference checks, and/or other agencies at the time of employment.

   b. Management will review the employee’s MVR annually (more frequently if reasons warrant), and ensure the employee has a valid driver license.

   c. All drivers must be at least eighteen (18) years of age.

   d. Where applicable, drivers will comply with FMCSA (CDL) regulations.

4. High Risk Drivers

   a. A driver or prospective driver will not be allowed to drive a vehicle if records, actions, and/or Safety or Human Recourses Department determine such.

   b. Additionally, a driver or prospective driver's history and conduct shall be extensively reviewed if the prospective driver’s accident and/or violation history includes one (1) or more of the following:

      i. Driving under the influence of alcohol or drugs (DWI/DUI)

      ii. Hit and run

      iii. Failure to report an accident

      iv. Negligent homicide arising out of the use of a motor vehicle

      v. Operating during a period of suspension or revocation

      vi. Using a motor vehicle in the commission of a felony

vii. Reckless driving

viii. Speeding citations three (3) or more in a three (3) year period

ix. Two (2) preventable accidents in a twelve (12) month period

c. All accidents and citations of violations will be reported to management immediately, investigated, documented, and reviewed by the Safety Department

d. If an employee's driver license is revoked, suspended, or otherwise denied, it is the responsibility of the employee to advise his/her supervisor immediately and not drive an Centurion Power vehicle until reinstated as a legal driver by the license issuing authority. Disciplinary action will be taken for employees not reporting the loss of their driving privilege. The following chart should be used as a guide for disciplinary action of employees who have violations while driving an Centurion Power vehicle.

Violation Description (while in company vehicle)	First Violation	Second Violation	Third Violation	Fourth Violation
• Public complaint of driving • Red light camera citation • Parking ticket	Verbal warning and noted in employee file	Written warning placed in employee file	Final written warning	Termination or loss of driving privilege
• Speeding ticket of less than 20 MPH over speed limit in company vehicle	Verbal warning and noted in employee file	Written warning placed in employee file	Final written warning	Termination or loss of driving privilege
• Speeding ticket of greater than 20 MPH over speed limit company vehicle	Final written warning	Termination or loss of driving privilege		
• Non Preventable MVA	Verbal warning and noted in employee file	Written warning placed in employee file	Final written warning	Termination or loss of driving privilege
• Minor MVA	Verbal warning and noted in employee file	Written warning placed in employee file	Final written warning	Termination or loss of driving privilege
• Serious MVA	Written warning placed in employee file	Final written warning	Termination or loss of driving privilege	
• Major MVA	Final written warning	Termination or loss of driving privilege		

NOTE 1: *The above recommended disciplinary action is the minimum for each violation and can be increased based on the results of an internal investigation. Centurion Power Disciplinary Policy HS C001 must be used when determining discipline.*

NOTE 2: *Centurion Power system of progressive discipline policy is a guideline for discipline. Centurion Power has the discretion to modify as needed the progression of discipline. The final determination of what constitutes a safety violation will be left up to the discretion of onsite supervision, the Safety Director and/or Director of Human Recourses.*

NOTE 3*: Any discipline that requires more than a written warning must be approved by the Director of Human Recourses. As in all disciplinary actions, each situation is to be carefully evaluated and investigated. The particular step taken in the disciplinary process will depend on the severity of the violation, employee history, and regard to safety. Supervisors should consult with the Corporate Office/Human Resources, if there is any question about whether or not disciplinary action is justified. Employees may be terminated immediately for willful or extremely serious violations.*

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6/1/2024	6/1/2024	0	Created document	Tony Asciutto

Centurion Power

HSE MANUAL

HSE 17

Personal Protective Equipment Policy

Revision 0
6/1/2024

I. SCOPE

A. The purpose of the Personal Protective Equipment Policies is to protect Centurion Power employees from exposure to work place hazards and the risk of injury through the use of personal protective equipment (PPE). PPE is not a substitute for more effective control methods and its use will be considered only when other means of protection against hazards are not adequate or feasible. It will be used in conjunction with other controls unless no other means of hazard control exist.

B. Personal protective equipment will be provided, used, and maintained when it has been determined that its use is required to ensure the safety and health of our employees and that such use will lessen the likelihood of occupational injury and/or illness. All PPE will be provided by Centurion Power to employees, employee-owned PPE shall not be used on any Centurion Power project.

C. This section addresses general PPE requirements, including eye and face, head, foot and leg, hand and arm, body (torso) protection, and protection from drowning. Separate programs exist for respiratory protection and hearing protection as the need for participation in these programs is established through industrial hygiene monitoring.

D. Centurion Power Personal Protective Equipment Policies includes:

1. Responsibilities of supervisors and employees
2. Hazard assessment and PPE selection
3. Employee training
4. Cleaning and Maintenance of PPE
5. Procurement procedures

E. A copy of this policy will be made available to all employees and their designated representatives.

II. RESPONSIBILITIES

A. **Health and Safety Department** is responsible for the development, implementation, and administration of Centurion Power PPE policies. This involves:

1. Conducting workplace hazard assessments to determine the presence of hazards which necessitate the use of PPE
    a) Selecting and purchasing PPE
    b) Reviewing, updating, and conducting PPE hazard assessments whenever
    c) A job change
    d) New equipment is used
    e) There has been an accident
    f) A supervisor or employee requests it
2. Maintaining records on hazard assessments
3. Maintaining records on PPE assignments and training
4. Providing training, guidance, and assistance to supervisors and employees on the proper use, care, and cleaning of approved PPE.
5. Periodically re-evaluating the suitability of previously selected PPE.

6. Reviewing, updating, and evaluating the overall effectiveness of PPE use, training, and policies.

B. **Supervisors, Crew Chiefs & Foreman** have the primary responsibility for implementing and enforcing PPE use and policies in their work area. This involves:

1. Providing appropriate PPE and making it available to employees
2. Ensuring that employees are trained on the proper use, care, and cleaning of PPE
3. Ensuring that employees properly use and maintain their PPE, and follow PPE policies
4. Notifying Safety Department and Management when new hazards are introduced or when processes are added or changed
5. Ensuring that defective or damaged PPE is immediately disposed of and replaced

C. **Employees** as the PPE user are responsible for following the requirements of the PPE policies. This involves:

1. Properly wearing PPE as required
2. Attending required training sessions
3. Properly caring for, cleaning, maintaining, and inspecting PPE as required
4. Following Centurion Power PPE policies and rules
5. Informing the supervisor of the need to repair or replace PPE

D. Employees who repeatedly disregard and do not follow PPE policies and rules will be disciplined in accordance with the Centurion Power Disciplinary policy HSE 16.

III. SELECTION PROCEDURES

A. Controlling and assessing PPE devices alone should not be relied on to provide protection against hazards, but should be used in conjunction with guards, engineering controls, and sound manufacturing practices. Certified hazard assessment general guidelines and steps are to be used by persons experienced in assessing hazard situations when matching protective devices to identified hazards. The use of the Certified Hazard Assessment form (Attachment 1)

B. Selection and fitting of the protective devices is most important. Careful consideration must be given to comfort and fit. PPE that fits poorly will not afford the necessary protection. Continued wearing of the device is more likely if it fits the wearer comfortably. Protective devices are generally available in a variety of sizes and adjustable. Care should be taken to ensure that the right size is selected.

C. **Eye and Face:** To protect employee's eye site from potential harm to the eyes specific eye protection PPE must be used. All eye protection must meet the ANSI Z 87 standard for face and protection. Eye protection must display the Z87 approval marked on the ear band.

1. **Selection** guideline for eye and face protection. The following chart provides general guidance for the proper selection of eye and face protection to protect against hazards associated with the listed hazard source operations.

Eye and Face Protection Selection Chart		
Source	Assessment of Hazards	Protection
IMPACT --- Chipping, grinding, machining, masonry work, woodworking, sawing, drilling, chiseling, powered fastening, riveting, and sanding	Flying fragments, objects, large chips, particles sand, dirt, etc.	Spectacles with side protection, goggles, face shields. For severe exposure, use face shield. See notes 1, 3, 5, 6, 10
HEAT -- Furnace operations, pouring, casting, hot dipping, and welding	Hot sparks	Face shields, goggles, spectacles with side protection. For severe exposure use face shield. See notes 1, 2, 3
	Splash from molten metals	Face shields worn over goggles. See notes 1, 2, 3
	High temperature exposure	Screen face shields, reflective face shields. See notes 1, 2, 3
CHEMICALS -- Acid and chemicals handling, degreasing, plating	Splash	Goggles, eyecup and cover types. For severe exposure, use face shield. See notes 3, 11
	Irritating mists	Special-purpose goggles
DUST -- Woodworking, buffing, general dusty conditions	Nuisance dust	Goggles, eyecup and cover types. See note 8
LIGHT AND/OR RADIATION		
Welding: Electric arc	Optical radiation	Welding helmets or welding shields. Typical shades: 10-14. See notes 9, 12
Welding: Gas	Optical radiation	Welding goggles or welding face shield. Typical shades: gas welding 4-8, cutting 3-6, brazing 3-4 See note 9
Cutting, Torch brazing, Torch soldering	Optical radiation	Spectacles or welding face-shield. Typical shades 1.5-3. See notes 3, 9
Glare	Poor vision	Spectacles with shaded or special-purpose lenses, as suitable. See notes 9, 10.

Notes to Eye and Face Protection Selection Chart:

1. *Care should be taken to recognize the possibility of multiple and simultaneous exposure to a variety of hazards. Adequate protection against the highest level of each of the hazards should be provided. Protective devices do not provide unlimited protection.*
2. *Operations involving heat may also involve light radiation. As required by the standard, protection from both hazards must be provided.*
3. *Face shields should only be worn over primary eye protection (spectacles or goggles).*
4. *As required by the standard, filter lenses must meet the requirements for shade designations in 1910.133(a)(5). Tinted and shaded lenses are not filter lenses unless they are marked or identified as such.*
5. *As required by the standard, persons whose vision requires the use of prescription (Rx) lenses must wear either protective devices fitted with prescription (Rx) lenses or protective devices designed to be worn over regular prescription (Rx) eyewear.*
6. *Wearers of contact lenses must also wear appropriate eye and face protection devices in a hazardous environment. It should be recognized that dusty and/or chemical environments might represent an additional hazard to contact lens wearers.*
7. *Caution should be exercised in the use of metal frame protective devices in electrical hazard areas.*

8. *Atmospheric conditions and the restricted ventilation of the protector can cause lenses to fog. Frequent cleansing may be necessary.*
9. *Welding helmets or face shields should be used only over primary eye protection (spectacles or goggles).*
10. *Non-side shield spectacles are available for frontal protection only, but are unacceptable for the sources and operations listed for impact.*
11. *Ventilation should be adequate, but well protected from splash entry. Eye and face protection should be designed and used so that it provides both adequate ventilation and protects the wearer from splash entry.*
12. *Protection from light radiation is directly related to filter lens density. See note (4). Select the darkest shade that allows task performance*.

2. **Inspection** eye and face protection: The following chart should be used to inspect the Face and Eye protection. Eye and Face protection must be inspected prior to each use by employees.

Inspection Criteria for Eye and Face protection		
Inspected Part	Conditions	Action
Lenses	If vision is obstructed by scratches, distortion or involved in an incident	Replace
Ear bands	Broken, missing or distorted	Replace
Face Shield	Cracks, Greater than 20% scratched, heat distortion	Replace
Head Bands	Loss of adjustment, broken attachment, Exposed to chemicals	Replace
Goggles	Distorted face seal, broken scratched lenses, or involved in a chemical exposure	Replace

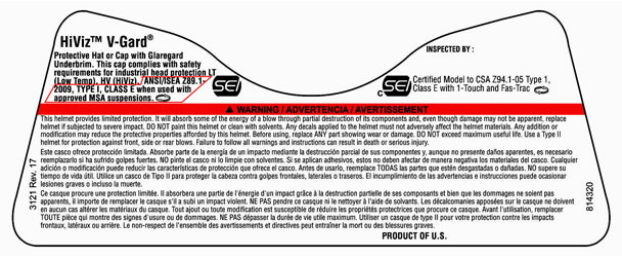
A. **Head protection:** Selection guidelines for head protection. All head protection is designed to provide protection from impact and penetration hazards caused by falling objects. Head protection is also available which provides protection from electric shock and burn. When selecting head protection, knowledge of potential electrical hazards is important. The following head protection chart will aid in selection process.

Head Protection Selection Criteria Z-89.1 2009		
Source	Assessment of Hazards	Protection
Construction sites, overhead work, logging activity, exposure to lower voltage exposed electrical conductors, low hanging material potential for head bumps	Falling objects, Bump protection side impact protection, and Nominal lower voltage contact protection up to 2,200 volts	Class **G** Helmets (General Duty)
Construction sites, overhead work, logging activity, exposure to higher voltage exposed electrical conductors, low hanging material potential for head bumps	Falling objects, Bump protection side impact protection, and Nominal higher voltage contact protection up to 20,200 volts	Class **E** Helmet (Electrical)
Construction sites, overhead work, logging activity, low hanging material potential for head bumps	Falling objects, Bump protection side impact protection	Class **C** Helmet (Conductive)

Notes: additional requirements on style and use are listed in the additional markings chart below.

Additional Markings and Labels	
Required label markings	• The manufacturer's name or identifying mark • Date of Manufacture • The legend, "ANSI Z89.1-2014" • The Type and Class Designation • The approximate head size range
Type I	Helmets designed to reduce the force of impact resulting from a blow only to the top of the head
Type II	Helmets designed to reduce the force of impact resulting from a blow to the top or sides of the head

Sample label found inside hard hat shell



Reverse donning: Hard hats marked with a "reverse donning arrow" can be worn frontward or backward in accordance with the manufacturer's wearing instructions. They pass all hard hat testing requirements, whether worn frontward or backward.	
Lower temperature: Hard hats marked with an "LT" indicate that the hard hat meets all testing requirements of the standard when preconditioned at a temperature of -30°C (-22°F).	"**LT**"
Higher temperature: users who work in hot environments the helmet is preconditioning at a higher temperature of 140º F +- 3.6º F (60º C +- 2º C).	"**HT**"
High visibility: Hard hats marked with an "HV" indicate that the hard hat meets all testing requirements of the standard for high visibility colors. This includes tests for chromaticity and luminescence.	**"HV"**
Mining: Underground mining requires additional (Some mining attachments will reduce the Electrical classification to Class C)	**"Mine"**
ATV Helmets: When operating and motorized off road vehicle like an ATV that does not have an enclosed cab must wear an approved Helmet when riding.	**DOT**

Examples of Certification lables for ATV helmets

Note: DOT Department of Transportation
Snell Private Helmet standard company
ECE Economic Commission for Europe an united nations standard group.

A. **Inspection** all hard hats and Helmets must be inspected prior to each use and if found defective replaced immediately. Use the following inspection criteria for Head protection chart:

Head Protection Inspection for hard hats and ATV helmets		
Helmet Shell	Look for cracks, distortions, dents and fading of color	Replace
Helmet Suspension	Broken straps, distorted straps, missing bands, no adjustment available	Replace
Chin Strap	Look for tears and distorted claps	Replace

1. **Service Life:** hard hats do not have a predetermined service life. All hard hat components and accessories should be inspected daily for signs of dents, cracks, penetration and any damage due to impact, rough treatment or wear that might reduce the degree of protection originally provided.
2. In addition to everyday wear and tear, ultraviolet (UV) radiation can pose a problem for hard hats constructed of plastic materials. Damage caused by UV radiation is easy to spot: the hat will lose its glossy finish and eventually take on a chalky appearance. Further degradation could cause the shell to actually start flaking away. A helmet with worn, damaged or defective parts should be removed from service.
3. Useful service life guidelines supplied by the helmet manufacturers are intended to provide the user with information that certain conditions may affect a specific helmet's continued protection over time. Specific service life, defined in terms of number of years, is not required though individual manufacturers may choose to include such information for their helmets.

C. **Foot Protection** Selection guidelines. Protective footwear is required by the Occupational Safety and Health Administration (OSHA) for all employees who could be exposed to falling objects, hazardous materials, or matter that could pierce the sole. OSHA also has specific standards that require the footwear to meet certain impact and compression tests. In order for your workplace to be as safe as possible you should make sure that you follow OSHA guidelines and purchase only certified footwear.

Foot Protection Chart		
Source	Assessment of Hazard	Protection
Impact	Falling objects, parts, heavy tools	Safety shoes. For severe exposure use metatarsal guards (See ANSI performance requirement)
Penetration	Nails, scrap metal, and other sharp objects	Footwear with puncture resistant soles/steel insert
Compression	Rolling or pinching objects, rolls, carts or vehicles	Safety shoes. For severe exposure use metatarsal guards (See ANSI performance requirement)
Chemicals	Splashing/spilling liquids, i.e. solvents, oils, paints, corrosives, acids, etc.	Solid Leather upper shoes with no ventilation screens for mild exposures. Rubber boots or shoes with spats for severe exposure. Consult the SDS for proper footwear protection.
Electrical	Contact with exposed energized parts, power lines, conductors, arcing, sparks or static discharges	Footwear with special nonconductive/insulated soles. Non static producing soles
Heat	Splash from molten Metal welding cutting activities	Heavy leather safety shoes with metatarsal guard or spats
Water / Ice	Wetness/ moisture from prolonged exposure, slipping hazards, cold hazards	Insulated Shoe, boots or waders with slip resistant sole
Temperature	Exposure to extreme cold	Insulated shoe/boots

ANSI Performance Requirements for Occupational Foot protection		
Class	Compression Resistance (Pounds)	Impact Resistance (Foot-Pounds)
75	2,500	75
50	1,750	50
30	1,000	30

1. **Inspection and Cleaning** of footwear: as with all protective equipment, safety footwear should be inspected prior to each use. Shoes and laces should be checked for wear and tear at reasonable intervals. This includes looking for cracks or holes, separation of materials, broken buckles or laces. The soles of shoes should be checked for pieces of metal or other embedded items that could present electrical or tripping hazards. Employees should follow the manufacturers' recommendations for cleaning and maintenance of protective footwear.

D. **Hand Protection:** If a workplace hazard assessment reveals that employees face potential injury to hands and arms that cannot be eliminated through engineering and work practice controls, Centurion Power must ensure that employees wear appropriate protection. Potential hazards include skin absorption of harmful substances, chemical or thermal burns, electrical dangers, bruises, abrasions, cuts, punctures, fractures and amputations.

1. **Types of Protective Gloves -** There are many types of gloves available today to protect against a wide variety of hazards. The nature of the hazard and the operation involved will affect the selection of gloves. The variety of potential occupational hand injuries makes selecting the right pair of gloves challenging. It is essential that employees use gloves specifically designed for the hazards and tasks found in their workplace because gloves designed for one function may not protect against a different function even though they may appear to be an appropriate protective device. The following are examples of some factors that may influence the selection of protective gloves for a workplace.

    a) Type of chemicals handled

    b) Nature of contact (total immersion, splash, etc.)

    c) Duration of contact

    d) Area requiring protection (hand only, forearm, arm)

    e) Grip requirements (dry, wet, oily.

    f) Thermal protection

    g) Size and comfort

    h) Abrasion/resistance requirements

2. Gloves made from a wide variety of materials are designed for many types of workplace hazards. In general, gloves fall into four groups:

    a) Gloves made of leather, canvas or metal mesh

    b) Fabric and coated fabric gloves

    c) Chemical- and liquid-resistant gloves

    d) Insulating rubber gloves for electrical protective equipment

Four major categories of hand protection	
Gloves made of leather, canvas or metal mesh Sturdy gloves made from metal mesh, leather or canvas provides protection against cuts and burns. Leather or canvas gloves also protect against sustained heat.	
Leather gloves	Protect against sparks, moderate heat, blows, chips and rough objects
Aluminized gloves	Provide reflective and insulating protection against heat and require an insert made of synthetic materials to protect against heat and cold
Aramid fiber gloves	Protect against heat and cold, are cut and abrasive resistant and wear well
Synthetic gloves	Of various materials offer protection against heat and cold, are cut and abrasive resistant and may withstand some diluted acids. These materials do not stand up against alkalis and solvents

Fabric and coated fabric gloves Fabric and coated fabric gloves are made of cotton or other fabric to provide varying degrees of protection	
Fabric gloves	Protect against dirt, slivers, chafing and abrasions. They do not provide sufficient protection for use with rough, sharp or heavy materials. Adding a plastic coating will strengthen some fabric gloves
Coated fabric gloves	Are normally made from cotton flannel with napping on one side. By coating the un-napped side with plastic, fabric gloves are transformed into general-purpose hand protection offering slip-resistant qualities. These gloves are used for tasks ranging from handling bricks and wire to chemical laboratory containers. When selecting gloves to protect against chemical exposure hazards, always check with the manufacturer or review the manufacturer's product literature to determine the gloves' effectiveness against specific workplace chemicals and conditions.
Chemical and Liquid Resistant gloves Chemical resistant gloves are made with different kinds of rubber: natural, butyl, neoprene, nitrile and fluorocarbon (viton); or various kinds of plastic: polyvinyl chloride (PVC), polyvinyl alcohol and polyethylene. These materials can be blended or laminated for better performance. As a general rule, the thicker the glove material, the greater the chemical resistance but thick gloves may impair grip and dexterity, having a negative impact on safety	
Butyl gloves	Are made of a synthetic rubber and protect against a wide variety of chemicals, such as peroxide, rocket fuels, highly corrosive acids (nitric acid, sulfuric acid, hydrofluoric acid and red-fuming nitric acid), strong bases, alcohols, aldehydes, ketones, esters and nitrocompounds. Butyl gloves also resist oxidation, ozone corrosion and abrasion, and remain flexible at low temperatures. Butyl rubber does not perform well with aliphatic and aromatic hydrocarbons and halogenated solvents.
Natural (latex) rubber gloves	Are comfortable to wear, which makes them a popular general-purpose glove. They feature outstanding tensile strength, elasticity and temperature resistance. In addition to resisting abrasions caused by grinding and polishing, these gloves protect workers' hands from most water solutions of acids, alkalis, salts and ketones. Latex gloves have caused allergic reactions in some individuals and may not be appropriate for all employees. Hypoallergenic gloves, glove liners and powderless gloves are possible alternatives for workers who are allergic to latex gloves.
Neoprene gloves	Are made of synthetic rubber and offer good pliability, finger dexterity, high-density and tear resistance. They protect against hydraulic fluids, gasoline, alcohols, organic acids and alkalis. They generally have chemical and wear resistance properties superior to those made of natural rubber.
Nitrile gloves	Are made of a copolymer and provide protection from chlorinated solvents such as trichloroethylene and perchloroethylene. Although intended for jobs requiring dexterity and sensitivity, nitrile gloves stand up to heavy use even after prolonged exposure to substances that cause other gloves to deteriorate. They offer protection when working with oils, greases, acids, caustics and alcohols but are generally not recommended for use with strong oxidizing agents, aromatic solvents, ketones and acetates.

Note: **Chemical Resistance Selection Chart for Protective Gloves see (Attachment 2)**

3. **Care of Protective Gloves**: Protective gloves should be inspected before each use to ensure that they are not torn, punctured or made ineffective in any way. A visual inspection will help detect cuts or tears but a more thorough inspection by filling the gloves with water and tightly rolling the cuff towards the fingers will help reveal any pinhole leaks. Gloves that are discolored or stiff may also indicate deficiencies caused by excessive use or degradation from chemical exposure.

4. Any gloves with impaired protective ability should be discarded and replaced. Reuse of chemical-resistant gloves should be evaluated carefully, taking into consideration the absorptive qualities of the gloves. A decision to reuse chemically-exposed gloves should take into consideration the toxicity of the chemicals involved and factors such as duration of exposure, storage and temperature.

E. **Fire Retardant/Arc Flash Clothing:** Generally, flame resistant clothing is defined in the U.S. as clothing made from the fabrics that self-extinguish once the source of ignition is removed. Centurion Power shall ensure that the outer layer of clothing worn by an employee, except for certain head, hands and feet items, is flame resistant under any of the following conditions:

1. The employee is exposed to contact with energized circuit parts operating at more than 600 volts;
2. An electric arc could ignite flammable material in the work area that, in turn, could ignite the employee's clothing;
3. Molten metal or electric arcs from faulted conductors in the work area could ignite the employee's clothing, or
4. The incident heat energy estimate exceeds 2.0 Cal/cm2
5. As required by customers in certain industries:
    a) Oil and Gas require outer layer to be FR Category One
    b) Electrical and Power transmission requires an Arc HRC2 Addition may be require after a risk assessment is completed. A more detailed description will be in the Electrical Safety policy.

IV. EMPLOYEE INFORMATION AND TRAINING

A. Centurion Power will conduct training on the following for PPE:

1. When to wear PPE
2. What PPE should be worn
3. How to put on and take off and adjust PPE
4. The limitations of the PPE and its use, care, and maintenance

B. Each affected employee must demonstrate an understanding of training received and the ability to use PPE properly. In addition retraining will take place when:

1. There is a reason to believe that any employee who has been trained does not have the required understanding and skill or
2. There are changes in the workplace, the employee must be retrained

C. PPE training should be documented. The certification should include the employee name, the dates of training, and the training content. When there is a reason to believe that any employee who has been trained does not have the required understanding and skill or there are changes in the workplace, the employee must be retrained.

V. CLEANING AND MAINTENANCE

A. It is important that all PPE be kept clean and properly maintained. Cleaning is particularly important for eye and face protection where dirty or fogged lenses could impair vision. For the purposes of compliance with 1910.132(a) and (b), PPE should be inspected, cleaned, and maintained at regular intervals so that the PPE provides the requisite protection. It is also important to ensure that

contaminated PPE which cannot be decontaminated is disposed of in a manner that protects employees from exposure to hazards.

B. PPE that is in disrepair must be discarded or removed from service until repaired.

C. Where employees provide their own protective equipment, the employer must assure its adequacy, including proper maintenance, and sanitation of such equipment.

VI. PROGRAM REVIEW

A. H&S will conduct a periodic program review at least once every three years.

VII. PPE ALLOCATION

The function of this section is to create clear and consistent guidelines in which Centurion Power will use to distribute the proper PPE to employees. Centurion Power provides safety equipment and clothing to their employees to protect them from workplace hazards that can cause injury or harm. PPE is not a substitute for a good engineering control, administrative controls or work practices. Centurion Power does not allow employee-owned PPE or equipment to be used or worn on Centurion Power job sites, as Centurion Power is not able to ensure proper PPE selection.

Supervisors, crew chiefs, and Client job requirements will be vital in determining what PPE and equipment is to be used, based on completion of PPE Hazard Assessment form (Attachment 1) using project site requirements, job classification, and/or OSHA Standards. Supervisors, crew chiefs and foremen will be responsible for implementing and enforcing PPE policies and use. He/she will also be responsible for its availability, proper maintenance, for training employees in its use and care, and for enforcing regulations regarding its wear and use.

MANDATORY REQUIREMENTS

Centurion Power will provide the items listed in the table below by job classification, for employee use on all Centurion Power projects. All PPE/clothing items have a specific life cycle and replacement requirement as listed in the section titled Clothing/PPE Replacement table.

	Safety Glasses	*Gloves*	*Ear Plugs*	*Hard Hat*	*High Vis Safety Vest*	*High Vis Surveyor Safety Vest*	*High Vis T-Shirt*	*Safety Boot Allowance*
Non Field Personnel								
Survey	**YES**	**YES**	**YES**	**YES**		**YES**	**YES**	**YES**
Survey – Oil & Gas	**YES**	**YES**	**YES**	**YES**		**YES**	**YES**	**YES**
Survey – E&P	**YES**	**YES**	**YES**	**YES**		**YES**	**YES**	**YES**
Field - Environmental	**YES**	**YES**	**YES**	**YES**	**YES**			**YES**
Field – Electrical	**YES**	**YES**	**YES**	**YES**	**YES**			**YES**
Field – Commercial Construction Management	**YES**	**YES**	**YES**	**YES**	**YES**		**YES**	**YES**
Field – Residential Construction	**YES**			**YES**				**YES**

Management								

OPTIONAL CLOTHING/PPE

Centurion Power may choose to provide the items listed in the below table, by job classification, for employee use on projects. The items listed on this table will be requested by an Centurion Power/Crew Chief if the project site requirements for our Clients dictate that specific clothing/PPE is required. In addition, Centurion Power, at its sole discretion, may choose to provide "optional" clothing/PPE to employees as a perk or bonus. All PPE/clothing items have a specific life cycle and replacement requirement as listed in the section titled Clothing/PPE Replacement table.

	Fire Retardant Clothing	*Arc Flash Resistant Clothing*	*High Vis Rain Gear*	*Fire Resistant Cold Weather Gear*	*Cold Weather Gear*	*Gaiters, Snake Protection*	*Respirator, Half Face*
Non Field Personnel							
Survey			**YES**	**YES**		**YES**	
Survey – Oil & Gas	**YES**		**YES**		**YES**	**YES**	
Survey – E&P		**YES**	**YES**		**YES**	**YES**	
Field - Environmental	**YES**		**YES**	**YES**	**YES**	**YES**	**YES**
Field - Electrical		**YES**	**YES**		**YES**		
Field – Commercial Construction Management					**YES**		
Field – Residential Construction Management					**YES**		
	Full Tyvek Coveralls	*Collared Tyvek Coverall*	*Tyvek Boot Covers*	*Chemical Resistant Gloves*	*Disposable Respirators*	*Face Shield*	*Respirator, Full Face*
Non Field Personnel							
Survey							
Survey – Oil & Gas							
Survey – E&P							
Field - Environmental	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**	**YES**
Field - Electrical							
Field – Commercial Construction Management							

CLOTHING/PPE REPLACEMENT TABLE

PPE Item	Life Cycle/Replacement Requirements
Mandatory PPE	**Estimated life cycle, final decision will be left with Supervisor*
• Hard Hat	• Every 3 years, unless structurally damaged*
• Safety Glasses	• As needed. Return old pair for new pair
• Safety Gloves	• As needed. Return old pair for new pair
• Ear Plugs	• As needed.
• High Vis Safety Vest Class II	• As needed. Return old vest for a new one*
• High Vis Surveyor Safety Vest Class II	• Every 3 years, unless extensively damaged*
• High Vis T-Shirt	• Every 12 months
• Safety Boot Allowance	• $100 allowance provided yearly for Field Staff, every 3 years for Engineering/Office Staff.
Job Specific/Optional PPE	
• Fire Retardant Clothing (Shirt & Pants)	• Every 12 months*
• Fire Resistant Clothing (Shirt & Pants)	• Every 12 months*
• High Vis Rain Gear (Full Set)	• As required*
• Fire Resistant Winter Coat	• As required, Every 3 years*
• Fire Resistant Winter Bibs	• As required, Every 3 years*
• Non FR Winter Coat	• As required, Every 3 years*
• Tyvek Coverall	• As required
• Tyvek Booties	• As required
• Chemical Resistant Gloves	• As required
• Disposable Respirator	• As required
• Face Shield	• As needed. Return old shield for new one*
• Non FR Winter Bibs	• As required, Every 3 years*
• Gaiters, Snake Protection	• As needed. Return old pair for new pair*
• Respirator, Full Face	• As needed. Return old respirator for new one*
• Respirator, Half Face	• As needed. Return old respirator for new one*
All requests for replacement PPE must come from a Supervisor or Crew Chief via the Employee PPE Requisition form (Attachment 3) and only AFTER old or damaged PPE has been deemed unsafe for use.	

VIII. REFERENCES

29 CFR 1910.132

OSHA and Cal/OSHA PPE Standard, CFR 1910.1200 and CCR Title 8, §3380)

REVISION DATE	REVIEW DATE	REVISION NUMBER	REVISION COMMENTS	AUTHOR
6/1/2024	6/1/2024	0	Create document	Tony Asciutto

Attachment 1

HAZARD ASSESSMENT FOR PPE

Use with Centurion Power Policy HSE 17 Personal Protective Equipment (PPE)

This tool can help you do a hazard assessment to see if your employees need to use personal protective equipment (PPE) by identifying activities that may create hazards for your employees. The activities are grouped according to what part of the body might need PPE. You can make copies, modify and customize it to fit the specific needs of your particular workplace, or develop your own form that is appropriate to your work environment.

This tool can also serve as written certification that you have done a hazard assessment as required by HSE 17 Document your hazard assessment for PPE. Make sure that the blank fields at the beginning of the checklist (indicated by *) are filled out (see below, Instructions #4).

Instructions:

1. Do a walk-through survey of each work area and job/task. Read through the list of work activities in the first column, putting a check next to the activities performed in that work area or job.
2. Read through the list of hazards in the second column, putting a check next to the hazards to which employees may be exposed while performing the work activities or while present in the work area. (For e.g., work activity: chopping wood; work-related exposure: flying particles).
3. Decide how you are going to control the hazards. Try considering engineering, workplace, and/or administrative controls to eliminate or reduce the hazards before resorting to using PPE. If the hazard cannot be eliminated without using PPE, indicate which type(s) of PPE will be required to protect your employee from the hazard.
4. Make sure that you complete the following fields on the form (indicated by *) to certify that a hazard assessment was done:
    - Name of your workplace
    - Address of the workplace where you are doing the hazard assessment
    - Name of person certifying that a workplace hazard assessment was done
    - Date the hazard assessment was done

PPE Hazard Assessment Certification Form

*Name of work place:		*Assessment conducted by:	
*Work place address:		*Date of assessment:	
Work area(s):		Job/Task(s):	

*Required for certifying the hazard assessment. Use a separate sheet for each job/task or work area

- **EYES**

Work activities, such as:	Work-related exposure to:	Can hazard be eliminated without the use of PPE?
☐ abrasive blasting ☐ sanding	☐ airborne dust	Yes ☐ No ☐
☐ chopping ☐ sawing	☐ flying particles	If no, use:
☐ cutting ☐ grinding	☐ blood splashes	☐ Safety glasses ☐ Side shields
☐ drilling ☐ hammering	☐ hazardous liquid chemicals	☐ Safety goggles ☐ Dust-tight goggles
☐ welding	☐ intense light	☐ Shading/Filter (#_____)
☐ punch press operations	☐ other: _____	☐ Welding shield
☐ other: _____		☐ Other: _____

- **FACE**

Work activities, such as:	Work-related exposure to:	Can hazard be eliminated without the use of PPE?
☐ cleaning ☐ foundry work	☐ hazardous liquid chemicals	Yes ☐ No ☐
☐ cooking ☐ welding	☐ extreme heat/cold	If no, use:
☐ siphoning ☐ mixing	☐ potential irritants: _____	☐ Face shield
☐ painting ☐ pouring molten	☐ other: _____	☐ Shading/Filter (#_____)
☐ dip tank operations metal		☐ Welding shield
☐ other _____		☐ Other: _____

• **HEAD**		
Work activities, such as: ☐ building maintenance ☐ confined space operations ☐ construction ☐ electrical wiring ☐ walking/working under catwalks ☐ walking/working under conveyor belts ☐ walking/working under crane loads ☐ utility work ☐ other: _____	Work-related exposure to: ☐ beams ☐ pipes ☐ exposed electrical wiring or components ☐ falling objects ☐ machine parts ☐ other: _____	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ If no, use: ☐ Protective Helmet ☐ Type A (low voltage) ☐ Type B (high voltage) ☐ Type C ☐ Bump cap (not ANSI-approved) ☐ Hair net or soft cap ☐ Other: _____
HANDS/ARMS		
Work activities, such as: ☐ baking ☐ material handling ☐ cooking ☐ sanding ☐ grinding ☐ sawing ☐ welding ☐ hammering ☐ working with glass ☐ using computers ☐ using knives ☐ dental and health care services ☐ other: _____	Work-related exposure to: ☐ blood ☐ irritating chemicals ☐ tools or materials that could scrape, bruise, or cut ☐ extreme heat/cold ☐ other: _____	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ If no, use: ☐ Gloves ☐ Chemical resistance ☐ Liquid/leak resistance ☐ Temperature resistance ☐ Abrasion/cut resistance ☐ Slip resistance ☐ Protective sleeves ☐ Other: _____

• **FEET/LEGS**		
Work activities, such as:	Work-related exposure to:	Can hazard be eliminated without the use of PPE?
☐ building maintenance	☐ explosive atmospheres	Yes ☐ No ☐
☐ construction	☐ explosives	If no, use:
☐ demolition	☐ exposed electrical wiring or components	☐ Safety shoes or boots
☐ food processing	☐ heavy equipment	☐ Toe protection ☐ Metatarsal protection
☐ foundry work	☐ slippery surfaces	☐ Electrical protection ☐ Heat/cold protection
☐ logging	☐ tools	☐ Puncture resistance ☐ Chemical resistance
☐ plumbing	☐ other: _____	☐ Anti-slip soles
☐ trenching		☐ Leggings or chaps
☐ use of highly flammable materials		☐ Foot-Leg guards
☐ welding		☐ Other: _____
☐ other: _____		

• **BODY/SKIN**		
Work activities such as:	Work-related exposure to:	Can hazard be eliminated without the use of PPE?
☐ baking or frying	☐ chemical splashes	Yes ☐ No ☐
☐ battery charging	☐ extreme heat/cold	If no, use:
☐ dip tank operations	☐ sharp or rough edges	☐ Vest, Jacket
☐ fiberglass installation	☐ other: _____	☐ Coveralls, Body suit
☐ irritating chemicals		☐ Raingear
☐ sawing		☐ Apron
☐ other: _____		☐ Welding leathers
		☐ Abrasion/cut resistance
		☐ Other: _____

BODY/WHOLE [1]		
Work activities such as: ☐ building maintenance ☐ construction ☐ logging ☐ utility work ☐ other: _____	Work-related exposure to: ☐ working from heights of 10 feet or more ☐ working near water ☐ other: _____	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ If no, use: ☐ Fall Arrest/Restraint: Type: _____ ☐ PFD: Type: _____ ☐ Other: _____ *(See Footnote 1)
LUNGS/RESPIRATORY [1]		
Work activities such as: ☐ cleaning ☐ pouring ☐ mixing ☐ sawing ☐ painting ☐ fiberglass installation ☐ compressed air or gas operations ☐ other: _____	Work-related exposure to: ☐ irritating dust or particulate ☐ irritating or toxic gas/vapor ☐ other: _____	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ *(See Footnote 1)
EARS/HEARING [1]		
Work activities such as: ☐ generator ☐ grinding ☐ ventilation fans ☐ machining ☐ motors ☐ routers ☐ sanding ☐ sawing ☐ pneumatic equipment ☐ punch or brake presses ☐ use of conveyors ☐ other: _____	Work-related exposure to: ☐ loud noises ☐ loud work environment ☐ noisy machines/tools ☐ punch or brake presses ☐ other: _____	Can hazard be eliminated without the use of PPE? Yes ☐ No ☐ *(See Footnote 1)

(1) *NOTE: There are other hazards requiring PPE (such as respiratory, noise, fall, etc. hazards), that are not included in this volume of the PPE Guide but will be covered in future volumes (see respiratory, hearing protection and for fall protection for further assessment). However, you should consider all hazards when you conduct your hazard assessment.*

Attachment 2

The following table from the U.S. Department of Energy (Occupational Safety and Health Technical Reference Manual) rates various gloves as being protective against specific chemicals and will help you select the most appropriate gloves to protect your employees. The ratings are abbreviated as follows:

Chemicals marked with an asterisk (*) are for limited service.	**VG**: Very Good	**G**: Good	**F**: Fair	**P**: Poor

Chemical Resistance Selection Chart for Protective Gloves

Chemical	Neoprene	Latex/Rubber	Butyl	Nitrile
Acetaldehyde*	VG	G	VG	G
Acetic acid	VG	VG	VG	VG
Acetone*	G	VG	VG	P
Ammonium hydroxide	VG	VG	VG	VG
Amy acetate*	F	P	F	P
Aniline	G	F	F	P
Benzaldehyde*	F	F	G	G
Benzene*	P	P	P	F
Butyl acetate	G	F	F	P
Butyl alcohol	VG	VG	VG	VG
Carbon disulfide	F	F	F	F
Carbon tetrachloride*	F	P	P	G
Castor oil	F	P	F	VG
Chlorobenzene*	F	P	F	P
Chloroform*	G	P	P	F
Chloronaphthalene	F	P	F	F
Chromic acid (50%)	F	P	F	F
Citric acid (10%)	VG	VG	VG	VG
Cyclohexanol	G	F	G	VG
Dibutyl phthalate*	G	P	G	G
Diesel fuel	G	P	P	VG
Diisobutyl ketone	P	F	G	P
Dimethylformamide	F	F	G	G
Dioctyl phthalate	G	P	F	VG
Dioxane	VG	G	G	G
Epoxy resins, dry	VG	VG	VG	VG
Ethyl acetate*	G	F	G	F
Ethyl alcohol	VG	VG	VG	VG
Ethyl ether*	VG	G	VG	G
Ethylene dichloride*	F	P	F	P
Ethylene glycol	VG	VG	VG	VG
Formaldehyde	VG	VG	VG	VG
Formic acid	VG	VG	VG	VG
Freon 11	G	P	F	G
Freon 12	G	P	F	G
Freon 21	G	P	F	G
Freon 22	G	P	F	G
Furfural*	G	G	G	G
Gasoline, leaded	G	P	F	VG
Gasoline, unleaded	G	P	F	VG

Glycerin	VG	VG	VG	VG
Hexane	F	P	P	G
Hydrazine (65%)	F	G	G	G
Hydrochloric acid	VG	G	G	G
Hydrofluoric acid (48%)	VG	G	G	G
Hydrogen peroxide (30%)	G	G	G	G
Hydroquinone	G	G	G	F
Isooctane	F	P	P	VG
Kerosene	VG	F	F	VG
Ketones	G	VG	VG	P
Lacquer thinners	G	F	F	P
Lactic acid (85%)	VG	VG	VG	VG
Lauric acid (36%)	VG	F	VG	VG
Lineolic acid	VG	P	F	G
Linseed oil	VG	P	F	VG
Maleic acid	VG	VG	VG	VG
Methyl alcohol	VG	VG	VG	VG
Methylamine	F	F	G	G
Methyl bromide	G	F	G	F
Methyl chloride*	P	P	P	P
Methyl ethyl ketone*	G	G	VG	P
Methyl isobutyl ketone*	F	F	VG	P
Methyl metharcrylate	G	G	VG	F
Monoethanolamine	VG	G	VG	VG
Morpholine	VG	VG	VG	G
Naphthalene	G	F	F	G
Napthas, aliphatic	VG	F	F	VG
Napthas, aromatic	G	P	P	G
Nitric acid*	G	F	F	P
Nitric acid, red and white fuming	P	P	P	P
Nitromethane (95.5%)*	F	P	F	F
Nitropropane (95.5%)	F	P	F	F
Octyl alcohol	VG	VG	VG	VG
Oleic acid	VG	F	G	VG
Oxalic acid	VG	VG	VG	VG
Palmitic acid	VG	VG	VG	VG
Perchloric acid (60%)	VG	F	G	G
Perchloroethylene	F	P	P	G
Petroleum distillates (naphtha)	G	P	P	VG
Phenol	VG	F	G	F
Phosphoric acid	VG	G	VG	VG
Potassium hydroxide	VG	VG	VG	VG
Propyl acetate	G	F	G	F
Propyl alcohol	VG	VG	VG	VG
Propyl alcohol (iso)	VG	VG	VG	VG
Sodium hydroxide	VG	VG	VG	VG
Styrene	P	P	P	F
Styrene (100%)	P	P	P	F
Sulfuric acid	G	G	G	G

Tannic acid (65)	VG	VG	VG	VG
Tetrahydrofuran	P	F	F	F
Toluene*	F	P	P	F
Toluene diisocyanate (TDI)	F	G	G	F
Trichloroethylene*	F	F	P	G
Triethanolamine (85%)	VG	G	G	VG
Tung oil	VG	P	F	VG
Turpentine	G	F	F	VG
Xylene*	P	P	P	F

Note: When selecting chemical-resistant gloves be sure to consult the manufacturer's Recommendations, especially if the gloved hand(s) will be immersed in the chemical.

Attachment 3

Employee PPE Requisition

(*To be completed by Supervisor/Manager*)

Employee Name: _____ Start Date: _____

Group: _____ Task: _____

Supervisor/Crew Chief: _____ Contact Number: _____

WILL THIS EMPLOYEE REQUIRE BASIC PPE? ❒ Yes ❒ No

Hi Vis Class II LS Tee – Lime green ❒Regular ❒FR/ARC	❒ Yes ❒ No ❒ SM ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL	Hi Vis Safety Vest Class II- Lime green	❒ Yes ❒ No ❒ SM ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL
Surveyor Hi Vis Safety Vest Class II - Lime green	❒ Yes ❒ No ❒ SM ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL	Safety Gloves	❒ SM ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL
Hard Hat – White w/ logo	❒ Yes	Safety Glasses	❒Indoor/Clear ❒Outdoor/Smoke
Ear protection	❒ Yes	Is this employee eligible for a safety boot allowance?	❒ Yes ❒ No
H2S Monitor	❒ Yes ❒ No		

New hire contact number: _____

Address where PPE is to be shipped: _____

_____

WILL THIS EMPLOYEE REQUIRE *SPECIFIC* PPE? ❒ Yes ❒ No

Shirt – FR, Long Sleeve, Collared, Khaki Brown	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL	Pants – FR, Navy Blue	❒ Yes ❒ No Waist: _____ in Inseam: _____ in
Flame Resistant Cold Weather Gear			
FR Baklava – Covers head, ears, & neck **fits under hard hat*	❒ Yes ❒ No *One Size	FR Bib Overalls – Brown	❒ Yes ❒ No Waist: _____ in Inseam: _____ in
FR Jacket w/hood – Brown	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL		
Non-Flame Resistant Cold Weather Gear			

Baklava – Covers head, ears, & neck **fits under hard hat*	❒ Yes ❒ No *One Size	FR Bib Overalls – Brown	❒ Yes ❒ No Waist: _____ in Inseam: _____ in
FR Jacket w/hood – Brown	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL		
Environmental Gear			
Tyvek Deluxe Coverall – With Hood/Booties	❒ Yes ❒ No ❒ LG ❒ XL ❒2XL (per units of 5)	Tyvek Coverall – No hood or booties	❒ Yes ❒ No ❒ LG ❒ XL ❒2XL ❒3XL (per units of 5)
Tyvek Bootie Covers 18" high	❒ Yes ❒ No ❒ LG ❒ XL (Boxes of 25)	13", 11mil Nitrile Gloves Puncture, abrasion, cut & chemical resistant	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL (Boxes of 12)
8 mil Extra Tough Nitrile Glove – Puncture/Abrasion/ Chemical resistant	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL (Boxes of 50)	N95 Industrial Respirator with Valve - Lightweight protection against dust, dirt and oil-free air	❒ Yes ❒ No (One Size - Carton of 10)
Half Face Respirator **requires fit test & medical exam*	❒ Yes ❒ No ❒ MED ❒ LG	Face shield **Specify Task*	❒ Yes ❒ No
Other Specialty Gear			
Rain Gear – 3 pc Hi Vis Lime green	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL	Chest Waders	❒ Yes ❒ No ❒ 6 ❒ 7 ❒ 8 ❒ 9 ❒ 10 ❒11 ❒ 12 ❒ 13
Gaiter – (FR avail) Snake Protection knee to ankle	❒ Yes ❒ No ❒ Regular ❒ Husky	Snake Protection Chaps Snake protection from knee to ankle with briar and bug protection from knee to hip	❒ Yes ❒ No ❒ Regular ❒ Husky
Hi Vis Winter Jacket Tingley Bomber Jacket	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL	Goggles **Specify Task*	❒ Yes ❒ No
Impact gloves	❒ Yes ❒ No ❒ MED ❒ LG XL	Ice Traction Spikes -	❒ Yes ❒ No

Specialty gear justification: _____

Job Number/Coding: _____ *(if applicable)*

Manager/Supervisor Approval: _____

Attachment 4

Employee PPE Distribution

Employee Name: _____ Start Date: _____

Employee Number: _____ Group: _____ Task: _____

Supervisor/Crew Chief: _____ Contact Number: _____

NEW HIRE PPE DISTRIBUTION

Hi Vis Tee – Lime green Short Sleeve_____ Long Sleeve _____ ❒Regular ❒FR/ARC	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL Qty issued:_____	Hi Vis Safety Vest - Lime green Qty issued:_____	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL
Hard Hat – White w/ logo	❒ Yes Qty issued:_____	**Surveyor** Hi Vis Safety Vest - Lime green Qty issued:_____	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL ❒4XL
Safety Gloves Qty issued:_____	❒ MED ❒ LG ❒ XL ❒2XL ❒3XL	Safety Glasses Qty issued:_____	❒Indoor/Clear ❒Outdoor/Smoke
Ear Protection	❒ Yes	Is this employee eligible for a safety boot allowance?	❒ Yes ❒ No **Full Time Employees Only*
H2S Monitor	❒ Yes ❒ No		

EMPLOYEE PPE RESPONSIBILITY

The employee is responsible for following the requirements of the PPE policies. This involves:

1. Properly wearing PPE as required
2. Attending required training sessions
3. Properly caring for, cleaning, maintaining, and inspecting PPE as required
4. Following Centurion Power PPE policies and regulations
5. Informing the supervisor of the need to repair or replace PPE

NOTE: *Employees who repeatedly disregard and do not follow PPE policies and rules will be subject to Centurion Power disciplinary policy up to and including termination.*

Employee Length of Service/Payback Policy

When a new Field Team Member commences their employment with Centurion Power, they will be provided with a set of Clothing/Gear/PPE associated with their job classification as designated in the "Mandatory Requirements" section in the Centurion Power PPE policy. However, if the employee voluntarily decides to terminate their employment with Centurion Power within the first six (6) months of employment, the employee will be responsible to reimburse Centurion Power for the cost of the Clothing/Gear/PPE initially provided on the New Hire Distribution Form. If Clothing/Gear/PPE is returned to Centurion Power upon separation and the items are in reusable condition, there will be no charge.

I have read and fully understand the statements above.

Employee signature: _____

Employee contact number: _____ Date of issuance: _____

WILL THIS EMPLOYEE REQUIRE SPECIFIC PPE? ❒ Yes ❒ No

Shirt – FR, Long Sleeve, Collared, Khaki Brown	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL		Pants – FR, Navy Blue	❒ Yes ❒ No Waist: _____ in Inseam: _____ in
Flame Resistant Cold Weather Gear				
FR Baklava – Covers head, ears, & neck **fits under hard hat*	❒ Yes ❒ No *One Size		FR Bib Overalls – Brown	❒ Yes ❒ No Waist: _____ in Inseam: _____ in
FR Jacket w/hood - Brown	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL			
Non-Flame Resistant Cold Weather Gear				
Baklava – Covers head, ears, & neck **fits under hard hat*	❒ Yes ❒ No *One Size		FR Bib Overalls – Brown	❒ Yes ❒ No Waist: _____ in Inseam: _____ in
FR Jacket w/hood - Brown	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL			
Environmental Gear				
Tyvek Deluxe Coverall – With Hood/Booties	❒ Yes ❒ No ❒ LG ❒ XL ❒2XL (per units of 5)		Tyvek Coverall – No hood or booties	❒ Yes ❒ No ❒ LG ❒ XL ❒2XL ❒3XL (per units of 5)
Tyvek Bootie Covers 18" high	❒ Yes ❒ No ❒ LG ❒ XL (Boxes of 25)		13", 11mil Nitrile Gloves Puncture, abrasion, cut & chemical resistant	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL (Boxes of 12)
8 mil Extra Tough Nitrile Glove – Puncture/Abrasion/ Chemical resistant	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL (Boxes of 50)		N95 Industrial Respirator with Valve - Lightweight protection against dust, dirt and oil-free air	❒ Yes ❒ No (One Size - Carton of 10)
Half Face Respirator **requires fit test & medical exam*	❒ Yes ❒ No ❒ MED ❒ LG		Face shield **Specify Task*	❒ Yes ❒ No
Other Specialty Gear				
Rain Gear – Hi Vis Lime green	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL		Chest Waders	❒ Yes ❒ No ❒ 6 ❒ 7 ❒ 8 ❒ 9 ❒ 10 ❒11 ❒ 12 ❒ 13
Gaiter – Snake Protection knee to ankle	❒ Yes ❒ No ❒ Regular ❒ Husky		Snake Protection Chaps Snake protection from knee to ankle with briar and bug protection from knee to hip	❒ Yes ❒ No ❒ Regular ❒ Husky
Hi Vis Winter Jacket Tingley Bomber Jacket	❒ Yes ❒ No ❒ MED ❒ LG ❒ XL ❒2XL ❒3XL		Goggles **Specify Task*	❒ Yes ❒ No
Impact gloves –	❒ Yes ❒ No ❒ MED ❒ LG XL			

Specialty gear justification: _____

Job Number/Coding: _____ *(if applicable)*

Manager/Supervisor Approval: _____

Centurion Power

HSE MANUAL

HSE 18

Fire Protection/Extinguisher Policy

Revision 0
6/01/2024

I. SCOPE

1. Centurion Power has adopted this policy for Fire Protection and Extinguisher use to ensure the safety of its employees. This Policy is meant to serve as an outline of the various aspects of the Centurion Power fire prevention program and as a resource for all employees, especially work area supervisors, who must carry out specific procedures in this plan.
2. This plan covers all employees and contractors who may become directly or indirectly involved in any fire situation associated with Centurion Power. The fire prevention policy is designed to ensure that all reasonable steps are taken to preserve life, property, and the environment from exposure to fire hazards. This plan identifies the basic elements of Centurion Power fire prevention program.

II. FIRE EVACUATION, REPORTING AND FIRE FIGHTING PROCEDURES

1. **General:** The Code of Federal Regulations permits employers to select from among several options relative to the procedures to be followed in the event of a fire in a work area depending on whether or not fire extinguishers are provided and if designated personnel have been trained in their use. Centurion Power policy is that buildings and vehicles shall be evacuated upon discovery of a fire and that only those persons who have received proper training in the use of portable fire extinguishers shall attempt to fight the fire in its early stages if it can be controlled.
2. **Evacuation Policy:** The evacuation policy is based upon whether or not the fire is of an interior or exterior nature.
    a. **Interior** - Fires in interior workplaces pose a greater hazard to employees. They can produce greater exposure to quantities of smoke, toxic gases, and heat because of the capability of a building or structure to contain or entrap these combustion products
    b. **Exterior** - Work areas which are normally open to the environment are somewhat less hazardous because the products of combustion generally are carried away by the thermal column of the fire. Employees also have a greater selection of evacuation routes if it is necessary to abandon any ongoing employee firefighting actions.
3. **Interior Fires:** Upon discovery of any interior fire, the following procedures shall be followed:
    a. Activate the building fire alarm if one exists in the building
    b. If the building is not equipped with a fire alarm system, start a verbal alert to warn all personnel of the danger and to order them to leave the building immediately. Leave the area immediately; if possible without compromising safety, close all windows and doors in the vicinity of the fire.
    c. From a telephone in a safe location, Dial 911 and provide the Emergency Personnel with the following information:
        - Your name
        - The building address and room number you are calling from. If the fire is in a different building, provide that information.
        - Nature of the fire and any specific information which may be valuable to the fire department such as any toxic chemicals that may be encountered or any incapacitated or trapped personnel that you are aware of.

d. Even if properly trained in the use of fire extinguishers, before you consider fighting an interior fire:
   - Make sure everyone has left the immediate area or is leaving
   - Make sure the Emergency Personnel has been notified
   - Make sure you are familiar with the operation of the portable fire extinguisher in the area
   - Decide your primary and secondary means of egress if the firefighting is unsuccessful

e. Never attempt to fight an interior fire if any of the following conditions exist:
   - If the fire is spreading beyond the immediate area where it started, or is already a large fire
   - If the fire could block your escape
   - If you are unsure of the proper operation of the fire extinguisher
   - If any of the above conditions exist, it is reckless to attempt to fight the fire with a portable extinguisher. Instead, leave the area immediately; if possible without compromising safety, close all windows and doors in the immediate area of the fire.

f. In the event you are trapped in a building and cannot escape:
   - Call 911 and advise the dispatcher of your location and the fact that you are trapped.
   - If you get caught in smoke, get down on your hands and knees and stay low. Smoke and hot fumes rise, so the cleanest air is near the floor.
   - If the fire is on the other side of the door to the room you are in, try to seal the doorway so that smoke and fumes cannot enter your room.
   - If water is available in the room, use a wet rag or a piece of your clothing as a filter to breathe through.

4. **Exterior Fires:** Upon discovery of any exterior fire, the following procedures shall be followed:

a. If the fire poses a threat to any immediately adjacent structure, inform someone inside the building so that personnel can evacuate the area.

b. Dial 911 and provide Emergency Dispatcher with the following information:
   - Your name
   - Location of the fire, if different from the location you are calling from. Use buildings or other readily identifiable landmarks for reference.
   - Nature of the fire, (automobile, brush, boat, etc.), any toxic chemicals or trapped personnel that you are aware of.

c. Before you attempt to fight an exterior fire:
   - In general, unless the area involved is a small patch of grass or brush and you have a water supply line available, it is best to leave the task to the fire company.
   - Automobile fires can be extremely hazardous due to the type of materials used for construction and the proximity of the fuel tank. Most automobiles contain

synthetic materials which may produce cyanide and a host of other highly toxic gases when burned. Stay upwind at all times.

- A minor fire in the engine compartment of a vehicle can be fought with a portable fire extinguisher if the hood can be opened a few inches and the contents of an appropriate portable fire extinguisher are directed through the opening. Do not raise the hood all the way open. If in doubt, activate the inside hood release mechanism and leave the vehicle. Keep others clear of the area.

5. **Coordinating with the Fire Company:** In the event the Fire Department is called, either by automatic or telephone alarm, stand well away from the building, driveways, roads, and fire hydrants. Arrival of individual fire fighters and emergency apparatus can be hindered by you or your vehicle. If you have specific knowledge of the fire (nature, location, or hazards) stay nearby and inform the operator of the fire apparatus or a fire officer (white or red helmet), if one is available.

III. PORTABLE FIRE EXTINGUISHERS

Portable fire extinguishers are designed to cope with fires of limited size. Fire extinguishers should be checked for use codes and used only on the type of fires for which the contents are specified.

1. **Classes and Uses**
    a. Class "A" Use for paper, trash, rubbish products, etc.
    b. Class "B" Used for oils, solvents, gas, grease, etc.
    c. Class "C" Used for electrical.
    d. Class "D" Used for metal.
2. **Location:** Extinguishers shall be conspicuously located where they shall be readily accessible and immediately available in the event of fire. They shall be located along normal routes of travel and, where practical, should be located near exits. Extinguishers must not be obstructed from view by furnishings, storage containers, furnaces, etc. In large rooms or storage areas where visual obstructions cannot be completely avoided, appropriate signs shall be provided to indicate their location.
3. **Installation:** Extinguishers shall be installed on the hangers or in the brackets supplied and shall be installed so that the top of the extinguisher is not more than 5 feet above the floor. Extinguishers mounted in cabinets or wall recesses or set on shelves shall be placed so that the operating instructions face outward. Extinguishers installed under conditions where they are subject to severe vibration shall be installed in brackets specifically designed to cope with vibration.
4. **Inspection:** Portable extinguishers shall be maintained in a fully charged and operable condition. Each location must perform the monthly visual inspection of portable fire extinguishers and an annual maintenance check required under 29 CFR 1910.157(e)(2). The purpose of the inspection is to ensure that the portable fire extinguishers are:
    a. In their designated places
    b. have not been tampered with or actuated
    c. and are free from:
        - Obvious physical damage
        - Corrosion

- Other impairments to full service

d. Any extinguisher showing defects shall be removed from service and replaced with a fully serviceable unit

e. Staff shall maintain appropriate records of inspections through tagging of the extinguishers and other means as found appropriate

f. Each extinguisher shall have a durable tag securely attached to show inspections, maintenance and/or recharge dates. This tag shall also include the initials or signature of the person who performs the service

g. Anyone noting a fire extinguisher in a location or condition that may compromise its operation should contact the Safety Department.

IV. FIRE ALARM, SPRINKLER, AND STANDPIPE SYSTEMS

1. The Facilities Management is responsible for the scheduling of required routine maintenance for all buildings which have alarm, sprinkler, and standpipe systems. This service has been conducted in accordance with the various applicable National Fire Protection Association Standards.

V. FLAMMABLE AND COMBUSTIBLE LIQUIDS

1. **Flammable**: A flammable liquid means any liquid having a flash point below 100° F.
2. **Combustible:** A combustible liquid means any liquid having a flash point at or above 100° F.
3. **Sources of Ignition:** In locations where flammable vapors may be present, precautions shall be taken to prevent ignition by eliminating or controlling sources of ignition.
    a. All electrical equipment and wiring shall be in accordance with the appropriate NFPA, National Electrical Code, and OSHA standards.
    b. Flammable liquids shall not be dispensed unless the nozzle and container are appropriately grounded to prevent ignition from static electricity.
    c. Open flames are not permitted in flammable or combustible storage areas.
    d. Hot work such as welding or cutting operations, use of spark-producing tools, and chipping operations shall be permitted only under supervision of a responsible individual in charge. The individual in charge shall make an inspection of the area to ensure that safety procedures are followed for the work specified.
4. **Storage and Use of Flammable Liquids:** Flammable liquids required in small quantities for frequent use shall be stored in approved safety cans in a metal cabinet or closet ventilated to the outside where practical. All containers used for storage, issue, and transport of flammable liquids shall be clearly marked as to their contents in accordance with the National Fire Protection Association Standard 704.

    Flammable liquids shall not be used for cleaning floors, clothing, or equipment.

VI. FIRE EXITS

Any swinging fire doors and any door in any stairwell designed to prevent the spread of fire shall be provided with positive latching mechanisms to hold it in the closed position against the

pressure of expanding fire gases. Fire doors shall not be secured in the open position at any time. All exits and corridors must be kept free of obstructions at all times.

1. Each individual should know at least 2 (two) exits, a primary and a secondary, from her or his usual work area.
2. Under no circumstances should elevators be used in the event of a fire. Most Elevators are programmed to halt when a fire alarm pull station is activated from any location in the building. Every individual is responsible for studying the posted building floor plan to ensure he or she is familiar with all available fire exits.

VII. SMOKE DETECTORS

Smoke detectors in buildings with central alarm systems are tied into a control panel which will automatically activate the internal fire alarm system and alert the Emergency Dispatch.

Most smoke detectors are smoke ionization type detectors commonly found in home use. An ionization smoke detector has a small amount of radioactive material that ionizes air in the sensing chamber, allowing an electrical current to flow which in turn activates the alarm mechanism. Many of the detectors are hardwired into the building electrical system and also have a battery to ensure continued use in the event of a power failure.

VIII. SAFE PRACTICES

The easiest fire to extinguish is the one that never starts. Fire prevention is everybody's responsibility. Unsafe practices shall not be tolerated. The following safe practices are only common sense, yet they are often forgotten or ignored.

1. Flammables, including data sheets, books, rags, clothing, flammable liquids (solvents, thinners, cleaners) or trash shall not be placed or stored near heaters or their vents, any electrical appliance (for instance, copying machines), or other potential sources of ignition.
2. Sources of actual or potential heat such as hot plates, electric coffee pots, and welding or cutting apparatus will not be placed near flammable materials.
3. Care must be taken not to block potential escape routes, particularly with flammable materials.
4. Any gasoline or kerosene which must be stored inside must be stored in an approved container and have the appropriate NFPA 704 markings readily visible. All portable storage cans must conform to OSHA Standards 29 CFR 1910.106 (d) and any other applicable regulations.
5. Each individual is personally responsible for assuring that extension cords and multiple plugs are in good condition.
6. Care must be taken at any construction/repair site or shop/lab area to avoid an accumulation of debris (wood shavings, saw dust, metal shavings, or fiberglass)

IX. EMERGENCY PROCEDURES

1. It is the responsibility of every Manager or supervisor to ensure that all persons under her or his supervision know how to get out of the building in the event of a fire or other emergency. An orderly evacuation depends on both an early and effective warning system and an individual awareness of the proper procedures to follow.
2. Each location shall follow the Emergency Action Procedures establish regarding the evacuation of buildings in emergencies. Supervisors must be able to account for all persons reporting to

them or known to have been in the area at the time of evacuation. Pre-determined assembly points shall be established at a safe distance for personnel accounting.

3. Due to the number of occupied buildings, their widespread locations, and diverse operations, it is not practical or safely feasible to develop or manage each unique evacuation plan from a central office. Each location supervisor shall ensure the contents of this plan are carried out and to develop any site specific sub-plans if required.

X. FIRE DRILLS

1. It is necessary that all persons be aware of and reminded of the procedures to follow should there be a fire. At least annually each location should conduct an Emergency drill for their location. All persons should remember that personal safety is more important than the work. Should a fire alarm sound, the situation should be treated as a true emergency in which data and equipment might have to be lost in order to assure personal safety.

XI. FIRE HAZARDS, GENERAL

1. Electrical equipment can become dangerously hot if the vent systems are blocked.
2. The policy forbidding smoking in all areas of all buildings, including individual offices, and enclosed spaces (automobiles, trucks) under the management or control of Centurion Power is of significant benefit in reducing fire hazards.

XII. TRAINING

1. The purpose of this section is to establish training procedures which are necessary for the proper use and understanding of a fire and extinguishing the fire. Selected employees will be provided with an educational program to familiarize them with the general principles of fire extinguisher use and the hazards involved with incipient stage firefighting. Training will require annual updating to ensure the proper procedures are being followed.
2. Initial Training
    a. General principles of a fire
    b. Hazards employed with an incipient stage fire(s)
    c. When to "back off" (evacuate) of an incipient stage fire(s)
    d. General fire principles of a fire extinguisher
    e. Hazards employed with the use a fire extinguisher.
    f. Proper use of a fire extinguisher
3. Retraining shall reestablish employee proficiency and introduce new or revised control methods and procedures, as necessary. Retraining shall be provided for all authorized and affected employees whenever there is:
    a. A change in job assignment
    b. A change in machines, equipment or processes that present a new potential fire hazard
    c. There is a change in the fire prevention procedures
    d. This employer has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of fire extinguishers or fire prevention procedures.

4. Training Documentation: All training will be documented and each employee's understanding will be subject to a "hands-on" test. Documentation will consist of, as a minimum, the employee's name, the trainer's name, the date of the training, and an outline of training provided.

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Centurion Power

HSE MANUAL

HSE 19

First Aid Policy

Revision 0
6/1/2024

I. SCOPE

1. Centurion Power recognizes the benefits of a safe and healthy work environment. The purpose of this Safety policy is to ensure that emergency Medical services are available to all onsite employees.
2. Centurion Power shall ensure the availability of medical personnel for advice and consultation on matters of occupational health.
3. Provisions shall be made prior to commencement of the project for prompt medical attention in case of serious injury. Centurion Power will develop a safe work plan which will identify the previsions stated in this paragraph.

II. FIRST AID TRAINED PERSONNEL

1. Centurion Power in the absence of an infirmary, clinic, hospital, or physician, that is reasonably accessible in terms of time and distance to the worksite, which is available for the treatment of injured employees, a person who has a valid certificate in first-aid training from the U.S. Bureau of Mines, the American Red Cross, or equivalent training that can be verified by documentary evidence, shall be available at the worksite to render first aid.
2. If it is reasonably anticipated that employees will be exposed to blood or other potentially infectious materials while using first aid supplies, employers are required to provide appropriate personal protective equipment (PPE) in compliance with the provisions of Centurion Power Bloodborne Pathogens policy HSE 9. This policy lists appropriate PPE for this type of exposure, such as gloves, gowns, face shields, masks, and eye protection.

III. FIRST AID KITS

1. First aid supplies shall be easily accessible when required.

2. The contents of the first aid kit shall be placed in a weatherproof container with individual sealed packages for each type of item, and shall be checked by the employer before being sent out on each job and at least weekly on each job to ensure that the expended items are replaced.

3. The American National Standards Institute (ANSI) Minimum Requirements for Workplace First Aid Kits and Supplies (ANSI/ISEA Z308.1-2015)—establishes minimum performance requirements for first aid kits and their supplies. First aid kits are classified based on the assortment and quantity of first aid supplies intended to deal with most types of injuries and sudden illnesses that may be encountered in the workplace. These may include major and minor wounds, minor burns, sprains and strains, and eye injuries. As each work environment is unique, it is expected that the contents of each kit will be supplemented as needed based upon the recommendations of a person competent in first aid.

4. Classification of First Aid Kits
    a. The kit containers are classified by portability, ability to be mounted, resistance to water, and corrosion and impact resistance. Four types are identified:
        i. **Type I**: Intended for use in stationary, indoor applications where kit contents have minimal potential for damage due to environmental factors and rough handling. These kits are not intended to be portable and should have a means for mounting in a fixed position. Some applications for Type I first aid kits are

general indoor use, office use or use in a manufacturing facility. First aid cabinets would generally fall into this type.

ii. **Type II**: Intended for use in portable indoor applications where the potential for damage due to environmental factors and rough handling is minimal. These kits should be equipped with a carrying handle. Some applications for Type II first aid kits are general indoor use, or use in office or manufacturing environments.

iii. **Type III**: Intended for portable use in mobile indoor and/or outdoor settings where the potential for damage due to environmental factors is not probable. Kits should have the means to be mounted and have a water resistant seal. Typical applications include general indoor use and sheltered outdoor use.

iv. **Type IV**: Intended for portable use in mobile industries and/or outdoor applications where the potential for damage due to environmental factors and rough handling is significant. Typical applications include the transportation industry, utility industry, construction industry and the armed forces.

b. Specific requirements for unitized first aid kits have been removed from the Z308.1-2015 standard to emphasize the importance of the contents rather than the configuration. Unitized kits contain first aid supplies in uniform-sized, color-coded boxes as follows:

i. **Blue** – Antiseptic
ii. **Yellow** – Bandages
iii. **Red** – Burn Treatment
iv. **Orange** – Personal Protective Equipment
v. **Green** – Miscellaneous

5. Maintenance and Inspection
   a. To ensure the completeness and usable condition of all supplies, first aid kits should be inspected and maintained on a regular basis. Some supplies may have expiration dates; any that are beyond that marked date should be replaced.

6. Marking and Labeling
   a. All labels and markings must be legible and permanent. Each kit and/or location must be visibly marked. Each kit must also have a label with the following information presented, as applicable, in at least a six-point font:

Item	Class A Minimum Quantity	Class B Minimum Quantity	Size or Volume
Adhesive Bandages	16	50	1 x 3 in.
Adhesive Tape	1	2	2.5 yd (total)
Antibiotic Application	10	25	1/57 oz (0.5g) applications
Antiseptic	10	50	1/57 oz (0.5g) applications
Breathing Barrier	1	1	
Burn Dressing	1	2	4 x 4 in.
Burn Treatment	10	25	1/32 oz (0.9g) applications
Cold Pack	1	2	4 x 5 in.
Eye Covering	2	2	
Eye Wash	1 fl oz	4 fl oz	
First Aid Guide	1	1	
Hand Sanitizer	6	10	1/32 oz (0.9g) applications
Medical Exam Gloves	2 pair	4 pair	
Roller Bandage	1 0	2 1	2 in x 4 yd 4 in x 4 yd

Scissors	1	1	
Padded Splint	0	1	4 x 24 in.
Sterile Pads	2	4	3 x 3 in.
Tourniquet	0	1	1 in. (width)
Trauma Pads	2	4	5 x 9 in.
Triangular Bandage	1	2	40 in. x 40 in. x 56 in.

7. Proper equipment for prompt transportation of the injured person to a physician or hospital, or a communication system for contacting necessary ambulance service, shall be provided.

8. In areas where 911 is not available, the telephone numbers of the physicians, hospitals, or ambulances shall be conspicuously posted. Centurion Power will develop a safe work plan which will identify the previsions stated in this paragraph.

9. Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

IV. References

CFR 1926.1431

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Centurion Power

HSE MANUAL

HSE 20

Hand and Power Tool Policy

Revision 0
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I. SCOPE

1. Centurion Power is committed to providing a safe and healthy work environment for our employees. There are various types of tools and equipment used in the workplace for many different purposes. Examples include, but are not limited to, portable hand tools, power tools, pneumatic tools, and powder actuated tools.
2. The purpose of this policy is to provide employees with appropriate knowledge relating to the care and use of tools and equipment and to protect employees from hazards associated with improper use of tools and equipment and defective and poorly maintained tools and equipment.

II. GENERAL POLICY

1. Only trained and/or experienced employees may use/operate tools or equipment. Tools and equipment shall not be modified and they are to be used only for their designed purpose.
    a. It shall be the responsibility of the employee to inspect tools and equipment prior to use and to use all tools and equipment in a safe manner.
    b. Employees observed abusing, altering, modifying or misusing tools or equipment shall be subject to disciplinary action.
    c. Employees shall wear all appropriate personal protective equipment while using tools and equipment.
    d. Additionally if a tool or piece of equipment is found to be defective, the tool/equipment shall be red-tagged, taken out of service until it can be replaced or repaired by a qualified person.
2. It shall be the responsibility Project Manager or Site Superintendent to designate a competent person who will be assigned to be responsible for testing/inspecting and repairing all tools and equipment. All periodic inspections, maintenance and repairs of tools or equipment shall be documented.

III. PROCEDURES

1. **General Tool Safety:** Many serious injuries have resulted from the improper use of tools and equipment. Many of these injuries could have been prevented if the following rules were followed:
    a. **Inspection and Maintenance:**
        - All tools shall be identified and inventoried either individually or by group.
        - All tools in the inventory shall have a documented inspection at least once every six months. In addition to these periodic documented inspections all tools shall be inspected prior to issue and upon return to Site Supervisor and prior to each use by the user.
        - All tools will be kept in good working condition with no modifications.
        - All periodic inspections and all maintenance and repairs shall be documented. Completed forms shall be kept in a job binder with the Site Supervisor for one

year. The binder shall contain a copy of the inspection checklist for the type for tools and/or equipment being inspected.

b. **Selection:**

- Use the right tool for the task instead of trying to make the wrong one fit.

c. **Use:**

- Keep control of yourself, the tool, and the job. When applying force with a tool, remember that it may slip, break, or just suddenly do its job. Watch your hands and your balance (body mechanics) to avoid injury.
- Vibration Absorbing Gloves are to be made available to workers using pneumatic impact guns or other vibrating equipment. These gloves are required PPE for worker's operating heavy vibrating tools (i.e. jack hammers, 90 guns, impact guns etc.). The use of these gloves are designed to dampen vibration, dissipate impact and absorb shock, they can assist in the prevention of cumulative trauma injury often associated with operating this type of equipment. They only work if you use them.
- Select the right protective equipment for the task and use it properly.
- Do not use tools and equipment that you have not been trained to use.

d. **Care**:

- Take proper care of your tools and equipment. Keep them stored where they will not get damaged and will not present a hazard.
- Check your tools and equipment prior to use for defects, wear, or damage. Immediately remove from service and tag any defective tools. Damaged tools shall be turned into the Site Supervisor for repair or replacement.

e. **Supervision:**

- Supervisors shall be responsible for ensuring that employees are trained before using a specific tool. Watch your employees at work. Ask them about their immediate assignment and take an interest in finding the safest way to do the job. Then follow up to insure that the tools and equipment in your area are being used safely.

2. **Hand Tool Safety**

a. Hand tools shall only be used for the purpose for which they are intended

b. All appropriate PPE will be worn while using hand tools

c. Wrenches, including adjustable, pipe and socket shall not be used when jaws are sprung to the point of slippage

d. Pipe wrench parts (i.e., jaws) are not to be removed and used for anything other than the manufactured use

e. The use of snipes and cheater bars or double wrenching to gain leverage is prohibited

f. Always use tool holder while using hammer and knocker wrenches

g. Hand tools shall be tagged and removed from service if any of the following defects are present:

- Impact tools, such as hammers, flange wedges chisels, drift pins, pin bars and knocker wrenches with visible signs of mushrooming, cracking or bending.

- Wooden handle tools, such as hammers, picks, shovels, and brooms with visible sign of cracking, loosening or splintering of the handle.
- Wrenches, such as adjustable, combo and pipe with visible signs of bending, cracking, defective handles or other defects that impair their strength.

3. **Electrical Power Tool Safety**
    a. All appropriate PPE will be worn while using power tools.
    b. Be sure that the proper permit has been obtained prior to use of electrical power tools. GFCI's are to be used with all portable electric equipment. GFCI's are to be inspected and tested prior to each use.
    c. **Do not** connect electrical power unless the operating switch is turned off. Employee shall avoid loose fitting clothing when operating power tools.
    d. The power source on tools shall be physically disconnected prior to attempting any repairs or attachment replacement.
    e. Protective guards on power tools shall not be removed, altered or modified. All guarding will meet the requirements set forth by ANSI B15.1 1926.300 (c)
    f. Trigger/switch locks on power tools are prohibited.
    g. All electrical tools and power cords must be inspected.
    h. Electrical tools and power cords must display the current inspection color code for the current inspection period to it being placed in service.
    i. Electrical tools **shall not** be hoisted or carried by their power cords.
    j. Cords are tripping hazards. Route them so as to minimize interference in walkways. Overhead is preferred.
    k. Electrical power tools shall be tagged and removed from service if any of the following defects are present:
        - Electrical power tool cord does not have current inspection color code
        - Power cord is frayed, cut or damaged. The use of electrical tape to cover damage to cords is prohibited.
        - Defective or faulty on/off switches.
        - Loose or defective components

4. **Air Power Tool Safety**
    a. All hoses exceeding 1/2" inside diameter shall have a safety device at the source of supply or branch line to reduce pressure in case of hose failure.
    b. Chicago fittings shall be pinned.
    c. Attachments on air tools shall be secured by retainer pins and rings.
    d. **Do not** connect air unless the operating switch is turned off.
    e. **Do not** disconnect tool until air supply is shut off and air pressure is bled off.
    f. Air power tools **shall not** be hoisted or carried by their hoses.
    g. Hoses are tripping hazards. Route them so as to minimize interference in walkways. Overhead is preferred.

h. Air power tools shall be tagged and removed from service if any of the following defects are present:

- Air power tools, such as air power grinders, impact wrenches, German hacksaws with visible signs of deformities in the body of the tool, improperly functioning actuator, bent or deformed blades, or any signs of obvious damage to the air supply line fittings.
- Hoses must be visually inspected for cracking, signs of aging, worn or damaged connecting fittings, or any other obvious deformities, such as blistering or bulges.

5. **Powder Actuated Tool Safety**

a. Only employees who have received an approved training course and license for the particular tool to be used may operate powder-actuated tools.

b. Site Supervisor **shall not** issue powder-actuated tools unless the person requesting the tool can provide a current training for that tool.

c. Powder-actuated tools shall be tested prior to use to ensure all safeties are functioning.

d. The fastener **shall not** be loaded until ready for the shot. The tool **shall not** be left unattended unless it is unloaded.

e. **Never** point either an empty or loaded tool at any person

f. Keep both hands and feet clear of the open-end of the barrel

g. In the event of a misfire, the operator shall hold the tool firmly against the work surface for a period of 30 seconds and then follow manufacturer's instructions.

h. Personnel, other than the operator of the tool, must stay clear of the area where the tool is being used.

i. Operators of powder-actuated tools shall wear goggles for eye protection while operating these tools.

j. A sign at least 8 x 10 inches, using boldface type no less than 1 inch in height, shall be posted within 50 feet of the area where the tool is being used. The sign shall bear the following wording:

k. Powder-actuated tools shall be tagged and removed from service if any of the following defects are present:

- Tool has visible signs of worn or damaged part.
- Missing or malfunctioning parts or accessories
- Missing operator's instruction manual or missing power load and fastener chart
- Tool misfires more than one time during use

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Centurion Power

HSE MANUAL

HSE 21

Noise Exposure/Hearing Conservation Policy

Revision 0
6/1/2024

I. SCOPE

1. Centurion Power is committed to providing a safe and healthy work environment for our employees. It is the policy of Centurion Power to protect its employees from the hazards of excessive noise exposure on the job. Centurion Power has instituted a Hearing Conservation Program to ensure compliance with the OSHA standards regarding occupational noise exposure. The general objectives of this policy are as follows:
    a. To identify a population of noise "exposed" employees, i.e., those whose typical exposure to workplace noise equals or exceeds the action level as set by OSHA, or a level equivalent to a continuous 8-hour exposure to 85 dB(A). These employees are enrolled in the Hearing Conservation Program.
    b. To identify and demarcate work areas in which the sound level is sufficiently high to contribute substantially to an exposure at the level described above
    c. To reduce workplace exposure to noise through the use of hearing protection devices (ear plugs or ear muffs).
    d. To assess annually the hearing acuity of " exposed" employees, in order to detect very early noise-induced hearing loss, so that the progressive loss can be halted
    e. To ensure that all "exposed" employees are trained in the effects of excess noise on human hearing, and that each employee is informed on the correct use of hearing protection devices

II. GENERAL POLICY & PROCEDURES

1. Administration of Program
    a. The Director of Safety is responsible for administering this program at Centurion Power
2. Use of Engineering Controls
    a. Where employee noise exposure exceeds the OSHA Permissible Exposure Limit (PEL) of 85 dB on an eight hour time-weighted average, engineering or administrative controls will be used to reduce exposure. If such controls are not feasible, hearing protection devices (HPDs) will be provided at no cost to the employee and used to reduce exposures to below 85 dB.
    b. For all Centurion Power locations, there is no location with exposure levels approaching the action levels. On occasions Centurion Power employees will be on customer locations where Centurion Power employees will follow customers established Hearing Conservation Program.
3. Inclusion of Employees Into the Hearing Conservation Program
    a. Employees exposed to noise levels equal to or exceeding an 8-hour time weighted average of 85 dB will be included in the Hearing Conservation Program.
4. Noise Monitoring
    a. Noise measurements will be conducted to determine employee exposure to noise, and to identify those work areas and/or equipment that could contribute to noise exposure.
    b. Centurion Power will when suspected high noise area is present conduct noise exposure testing to ensure compliance with this policy.
    c. The Safety Department will maintain exposure and noise measurement records.

5. Labeling of Areas/Equipment

    a. All areas with noise levels exceeding 85 dB will be labeled thus to warn employees and visitors entering the area, of the need for hearing protection:

6. Audiometric Testing

    a. All employees assigned to jobs that require inclusion in the Hearing Conservation Program will receive a baseline audiogram within six (6) months of the first high noise exposure.

    b. Testing to establish a baseline audiogram shall be preceded by at least 14 hours without exposure to workplace noise. Hearing protection may be used to meet the requirement. Employees shall also be notified to avoid high levels of noise.

    c. Audiograms will then be given at least annually and compared to the baseline audiogram to determine if a standard threshold shift (STS) has occurred. An STS is defined as a change in the hearing threshold of an average of 10 dB or more in either ear, measured at 2000, 3000 and 4000 Hz.

    d. If an STS occurs, the affected employee shall be informed of this fact in writing, within 21 days of the determination.

    e. Unless a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure, Centurion Power shall ensure that employees already using hearing protectors shall be refitted and retrained in the use of hearing protectors and provided with hearing protectors offering greater attenuation if necessary.

    f. Employees must have a termination audiogram upon leaving Centurion Power, if they were required to participate in Centurion Power Hearing Conservation program.

    g. Concentra Medical clinics will keep all audiogram records on file.

7. Hearing Protection

    a. Hearing protection will be worn:

        - By all employees with noise exposures exceeding an eight hour time weighted average (TWA) of 90 dB.
        - When employees operate equipment that produces noise exceeding 85 dB
        - When employees or visitors enter areas where the noise level exceeds 85 dB

    b. Hearing protection devices will provide adequate attenuation as to reduce exposures to below 85 dB.

    c. Centurion Power shall evaluate hearing protection for the specific noise environments in which the protector will be used.

8. Training

a. All employees in the Hearing Conservation Program will receive training annually. This training will cover:
    - Effects of noise on hearing
    - Purpose of hearing protection
    - Types of hearing protection
    - Selection, use, fitting and care of hearing protectors
    - Purpose and procedures for audiometric testing.

b. Training is provided through any one or a combination of the following modes:
    - Classroom presentations
    - Video-based training
    - Online, text-based training through the Learning Management System

III. SPECIFIC RESPONSIBILITIES

1. Centurion Power
    a. Notify Safety Department when new noise sources are introduced
    b. Minimize noise through use of engineering controls
    c. Offer a variety of hearing protectors
    d. Provide access to clinic to ensure workers receive training and audiograms
    e. Administer and maintain this program
2. Supervisors
    a. Ensure workers use hearing protection when required
3. Safety Department
    a. Conduct noise monitoring and notify affected employees of their exposure
    b. Provide training services
    c. Recommend appropriate hearing protection
    d. Audit this departmental program periodically
    e. Conduct audiograms, evaluate results, and notify the affected employee within 21 days of determination of an STS
4. Individual
    a. Attend training and receive audiometric testing when required to do so under this policy
    b. Wear appropriate hearing protection when required and minimize noise exposure outside of work

IV. REFERENCES

29 CFR 1910. 95,
29 CFR 1926. 52

REVISION DATE	REVIEW DATE	REVISION NUMBER	REVISION COMMENTS	AUTHOR
6/1/2024	6/1/2024	0	Created document	Tony Asciutto

Centurion Power

HSE MANUAL

HSE 22

Respiratory Protection Policy

Revision 0
6/1/2024

I. SCOPE

1. This document is applicable to all Centurion Power personnel who are performing duties requiring the use of respiratory protection to prevent unnecessary exposure to airborne concentrations of toxic materials equal to or greater than the permissible limits established in existing Federal occupational safety and health standards or criteria.
2. This document outlines the minimal acceptable requirements for a respiratory protection program, delineates responsibilities, provides selection criteria in determining respiratory protection needs, and lists currently approved respiratory protective devices used at Centurion Power.
3. In the control of those occupational diseases caused by breathing air contaminated with harmful dusts, fogs, fumes, mists, gases, smokes, sprays, or vapors, the primary objective shall be to prevent atmospheric contamination. This shall be accomplished as far as feasible by accepted engineering control measures (for example, enclosure or confinement of the operation, general and local ventilation, and substitution of less toxic materials). When effective engineering controls are not feasible, or while they are being instituted, appropriate respirators shall be used pursuant to this section.
4. A respirator shall be provided to each employee when such equipment is necessary to protect the health of such employee. The employer shall provide the respirators which are applicable and suitable for the purpose intended. The employer shall be responsible for the establishment and maintenance of a respiratory protection program, which shall include the requirements outlined in paragraph (c) of this section. The program shall cover each employee required by this section to use a respirator.

II. RESPONSIBILITIES

1. **Safety Department**:
    a. The Director of Safety (or designee) is the Program Administrator
    b. Review the operations for which respiratory protective equipment may be required
    c. Make periodic surveys of operations and equipment at Centurion Power to assure adequate protection of employees is being provided
    d. Specify the appropriate equipment. The job situation, exposures involved, exposure levels, and respiratory protection factors will be taken into consideration when specifying a respirator. An inventory of all jobs for which respirators are required shall be maintained in the Office of Safety.
    e. Provide training on the storage, use and care of respiratory protective equipment
    f. Maintain a list of employees medically approved for use of respiratory protective equipment
    g. Generate a written Respiratory Protection Program (HSE 21) and update as needed
    h. Conduct annual inspections and evaluations to determine the continued effectiveness of the Respiratory Protection Program (HSE 21)
    i. Ensure fit testing takes place for each respirator wearer
2. **Supervisor and Managers Shall**:

a. Contact the Safety Department when they suspect a respirator may be required for a job

b. Insure that employees are provided with respirators at no cost to the employee

c. Attend training on the proper storage, use and maintenance of respiratory protective equipment

d. Insure that employees are scheduled and receive medical exams, and medical approval to wear a respirator when required

e. Insure that employees clean and maintain the respiratory protective equipment properly

f. Insure that employees using respirators voluntarily are provided with the information in Appendix A.

g. Insure that employees using respirators are provided an initial fit test before use and an annual fit test thereafter

3. **Employees Shall**:

a. Attend training on the storage, use and care of respiratory protective equipment.

b. Be clean shaven in areas where facial hair may prevent a proper face seal.

c. Store, use and maintain respirators in accordance with instructions given in training.

d. Report to the supervisor any operations or jobs which they suspect respiratory protection may be needed.

III. DEFINITIONS

For the purpose of this policy, the following definitions apply:

1. **NIOSH-certified:** Tested and listed as satisfactory by the National Institute for Occupational Safety and Health (NIOSH)
2. **Contaminant:** A harmful, irritating, or nuisance material in concentrations exceeding those normally found in ambient air
3. **Disinfection:** The destruction of pathogenic organisms, especially by means of chemical substances
4. **Dusts:** Solid particles, mechanically produced, with a size ranging from submicroscopic to macroscopic
5. **Emergency:** An unplanned event when a hazardous atmosphere of unknown chemical or particulate concentration suddenly occurs, requiring immediate use of a respirator for escape from or entry into the hazardous atmosphere to carry out maintenance or some other task

   Note: *This may or may not include cleanup, maintenance, or repair in unknown contaminant concentrations or oxygen deficiency*

6. **Evacuation or escape:** An unplanned event when a hazardous atmosphere of unknown chemical or particulate concentration suddenly occurs, requiring immediate use of a respirator for exiting the area only
7. **Fumes:** Solid particles generated by condensation from the gaseous state, generally after volatilization from molten metals, with a size usually less than 1 (one) micrometer in diameter
8. **Gases:** Substances which are gaseous at ordinary temperatures and pressures

9. **Immediately dangerous to life or health (IDLH):** A condition posing an immediate threat to life or health, or an immediate threat of severe exposure to contaminants likely to have adverse delayed effects on health. This condition includes atmospheres where oxygen content by volume is less than 19 percent.
10. **Mists:** Suspended liquid droplets generated by condensation or by breaking up of liquid with a size ranging from submicroscopic to macroscopic
11. **Oxygen deficient atmosphere:** An atmosphere containing 19.5 percent or less oxygen by volume
12. **Particulate matter:** A suspension of fine solid or liquid particles or fibers in air, such as dust, fog, fume, mist, smoke or sprays
13. **Pneumoconiosis-producing dust:** Dust which, when inhaled, deposited, and retained in the lungs, may produce signs, symptoms, and findings of pulmonary disease
14. **Radon daughters:** Particulate decay products of radon
15. **Respirator:** An approved safety device designed to provide the wearer with respiratory protection against inhalation of airborne contaminants and for some devices, protection against oxygen-deficient atmospheres
16. **Respiratory minute volume:** The amount of air inspired per minute
17. **Shall:** Indicates a requirement that is essential to meet the currently accepted standards of protection or Federal rules and regulations
18. **Should:** Indicates an advisory recommendation that is to be applied when practical
19. **Vapor:** The gaseous state of a substance that is solid or liquid at ordinary temperature and pressure

IV. REQUIREMENTS

1. Selection and use of Respiratory Protective Devices
    a. Respiratory equipment will be provided to employees at no cost to them.
    b. Respirators are considered an acceptable method of protecting the health of Centurion Power personnel only under the following circumstances:
        i. When it has been determined to the satisfaction of the Safety Department that there are no feasible engineering or work practice controls that can be used to adequately control the hazard
        ii. During intermittent, non-routine operations (i.e., not exceeding 1 (one) hour/day for 1 (one) day/week)
        iii. During the interim periods when engineering controls are being designed and/or installed
        iv. During emergencies
    c. Voluntary Usage: It is not the policy of Centurion Power to provide respiratory protection if not needed; however, if an employee expresses an absolute need, an appropriate respirator will be provided and all provisions of this policy will apply. The supervisor is to insure that the information provided in Appendix A is provided to the said employee.

d. All respirators used must be certified by the National Institute for Occupational Safety and Health (NIOSH) and shall only be used in accordance with the terms of that certification.

e. The correct respirator shall be specified for each job. The Safety Department shall determine the type of respiratory protective device best suited for the task.

f. Employees must leave the respirator use area if they detect vapor or gas breakthrough, changes in breathing resistance, or leakage of the facepiece.

g. The individual issuing the respirators shall be adequately instructed to insure that the correct respirator is used.

h. The date of issuance shall be recorded.

i. Respirator selection and use shall take into account the following:

    i. Health and safety factors
    ii. Nature of hazard
    iii. Intended use and limitations of respiratory protective devices
    iv. Movement and work-rate limitations
    v. Emergency escape time and distance requirements
    vi. Training requirements

j. Human factors is influenced by:

    i. Comfort
    ii. Ability to breathe without objectionable resistance
    iii. Adequate visibility under all conditions
    iv. Provisions for wearing prescription lenses
    v. Ability to communicate
    vi. Ability to perform all tasks without undue interference

2. Classification and description of respirators

Industrial respiratory protective devices have been designed, tested, and approved for protection against specific industrial exposures. These devices are conveniently grouped into two general classifications according to mode of operation.

a. Air Purifying Respirators

    i. Gas masks and chemical cartridges (gases and vapors)
    ii. Particulates (dusts, fog, fume, mist, smoke, and sprays)
    iii. Combination (gas, vapor, and particulate)
        a. Cartridges should be changed according to the manufacturer's directions or on the basis of breakthrough data, if available
        b. Respirators using cartridges or canisters must be equipped with an end-of-service-life indicator (ESLI) certified by NISOH
        c. If there is no ESLI available a change schedule will be formulated based on the manufacturers recommendations, objective information or data that will ensure the cartridges or canisters are changed before the end of their service life.

b. Atmosphere Supplying Respirators

    i. Self-contained Breathing Apparatus SCBA

    ii. Supplied air respirator with airline attached to a source of breathing air

        a. Some respirators have a means for indicating the remaining service life. Some type of warning is available for all self-contained

breathing apparatus. This may be a pressure gauge, timer, audible or physical alarm. The user should understand the operation and limitations of each type of warning device.

3. Limitations and use of respiratory protective devices

    a. The degree of respiratory hazard, as it refers to the selection and classification of respirators, depends upon the atmospheric oxygen concentration; contaminant's physical state, toxicity and concentration; the presence of other contaminants or stress factors in the working environment; and employee exposure time and susceptibility. Respiratory hazards may be classified as gas and vapor contaminants (immediately or not immediately dangerous to life or health), particulate contaminants (immediately or not immediately dangerous to life or health), and oxygen deficiencies. Each classification requires a different degree of respiratory protection.

    b. Respirator selection and use in atmospheres IDLH. It is the policy of centurion Power that employee will not enter atmosphere that are IDLH. However, in the event of an emergency, properly trained personnel may be required to assist.

        i. In areas where the wearer, with failure of the respirator, could be overcome by a toxic or oxygen-deficient atmosphere, at least one individual person shall be present with suitable rescue equipment in the form of self-contained breathing apparatus and protective clothing. Communications (visual, voice or signal line) shall be maintained between both or all individuals present. Planning shall be such that one individual will be unaffected in any likely incident and have the proper rescue equipment to be able to assist the other(s) in case of emergency.

        ii. When self-contained breathing apparatus are used in IDLH atmospheres, standby personnel shall be present with suitable rescue equipment.

        iii. Supplied air respirators are not approved for use in immediately dangerous to life and health (IDLH) atmospheres unless an auxiliary five minute pack air supply or an air storage receiver with an alarm is also provided because no respiratory protection is provided if the air supply fails.

        iv. Persons using supplied air respirators in IDLH atmospheres shall be equipped with safety harnesses and safety lines for lifting or removing persons from hazardous atmospheres or other equivalent provisions for the rescue of persons from hazardous atmospheres shall be used.

        v. Standby personnel with suitable self-contained breathing apparatus shall be located at the nearest fresh air base for emergency rescue.

        vi. The air supply hose from a compressor or cylinder air supply will be protected from damage, including cutting, kinking, crushing or burning. Hose couplings will be protected against disconnection. Trailing hoses shall be arranged to minimize tripping and to permit ready escape.

    c. Other considerations for respirator selection:

        i. **Exposure time**: Exposure time determines the length of time for which respiratory protection is needed, including the time necessary to enter and exit a contaminated area.

        ii. **Activity of the wearer**: The work to be covered, work rate, and mobility required of the wearer in carrying out his work should be considered in respirator selection.

iii. **Unusual hazards**: Unique factors, which may add additional dimensions to the hazard potential and must be considered when selecting respirators include, for example, skin absorption of the contaminant, skin irritation, eye irritation, and radiation of skin or whole body.

iv. **Vision:** All face pieces will restrict, to some degree, the wearer's vision. This may increase accident potential. Other problems include wearing of prescription glasses and fogging of the respirator lens.

v. **Communications:** Effective speech communication may be required in jobs for which the respirator is being selected. Conventional respirators distort the human voice. The respirator valve usually provides the pathway for some speech transmission over short distances in relatively quiet areas. However, talking can induce face piece or component leakage and should be limited while wearing the respirator. Mechanical and/or electrical speech transmission devices which eliminate these problems are available.

vi. **High Temperatures:** An employee working in areas of high ambient or radiant temperature is under potential stress. Any additional stress resulting from use of respirators should, therefore, be minimized. Centurion Power will insure that personnel required to use or to supervise other personnel using respiratory protective devices are provided training annually or as needed.

4. **Training:** Both supervisors and workers shall be instructed by competent persons knowledgeable in the area of respiratory protection. Training shall provide individuals an opportunity to handle the respirator, have it fitted properly, test its face seal, and wear it in normal air for a period of time to become familiar with it.

    a. Minimum training shall include:

        i. Instruction in the nature of the hazard, whether acute, chronic, or both, and what may happen if the respirator is not used

        ii. What is the proper type of respirator for each hazardous atmosphere

        iii. The respirator's capabilities and limitations

        iv. Annual hands on instruction and training in the use of the respirator. Training should also include recognition End of Life Indicators (ESLI) on cartridges and canisters

        v. Classroom and field training to recognize and cope with emergency situations

        vi. Instructions on cleaning and maintenance of the respirators

5. **Fit Testing**: Every respirator wearer shall receive fitting instructions including demonstrations and practice in how the respirator should be worn, how to adjust it, and how to determine if it fits properly. It is the Safety Department and Supervisors responsibility to ensure that the employee receive an initial fit test as well as an annual fit test.

    a. Varieties of respirators should be available to employees. Facial structure varies considerably from one individual to another. The respirator wearer must be clean shaven to insure proper fit and seal.

    b. Respirators are made in various sizes ranging from small, medium and large. Different sizes of the same model or different models of approved respirators must be available to employees.

    c. Before initial use, each respirator shall be properly fitted, leakage tests performed, and the face piece-to-face seal tested in a realistic test situation. Records of fit tests shall be

maintained. These records shall, as a minimum, contain date of fit test, name of employee, make, model and size of the respirator tested and the results of the test.

d. Individuals wearing corrective glasses must maintain a proper seal on the respirator. Temple bars or straps extend through the sealing edge of the face piece is not allowed. Kits for mounting corrective lenses inside full face pieces can be purchased. When an employee must wear corrective lenses as part of the face piece, the face piece and lenses shall be fitted by qualified individuals to provide good vision, comfort and a gas-tight seal.

e. Each time the wearer puts on the respirator, positive and negative pressure tests shall be conducted to insure a satisfactory face fit. Employees must maintain a clean shaven face to achieve the best fit of the respirator. More than 3 (three) days growth of a beard, sideburns, a skullcap that projects under the face piece, temple pieces on corrective lenses, can prevent a good face piece-to-face seal. There are two types of fit testing that need to be performed, fitting the proper sizes respirator to the employees face and checking the fit of the seals when first donning the respirator.

f. Fit Testing, Fitting the Respirator:

   i. Qualitative fit testing is a pass/fail test method that uses your sense of taste or smell, or your reaction to an irritant in order to detect leakage into the respirator face piece. Qualitative fit testing does not measure the actual amount of leakage. Whether the respirator passes or fails the test is based simply on you detecting leakage of the test substance into your face piece. There are four qualitative fit test methods accepted by OSHA:

      a. Isoamyl acetate, which smells like bananas

      b. Saccharin, which leaves a sweet taste in your mouth

      c. Bitrex, which leaves a bitter taste in your mouth

      d. Irritant smoke, which can cause coughing

      Qualitative fit testing is normally used for half-mask respirators - those that just cover your mouth and nose. Half-mask respirators can be filtering facepiece respirators.

   ii. Quantitative fit testing uses a machine to measure the actual amount of leakage into the facepiece and does not rely upon your sense of taste, smell, or irritation in order to detect leakage. The respirators used during this type of fit testing will have a probe attached to the facepiece that will be connected to the machine by a hose. There are three quantitative fit test methods accepted by OSHA:

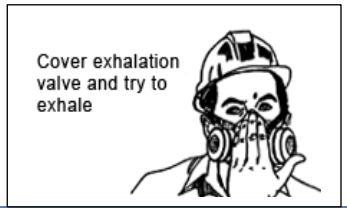
      a. Generated aerosol

      b. Ambient aerosol

      c. Controlled Negative Pressure

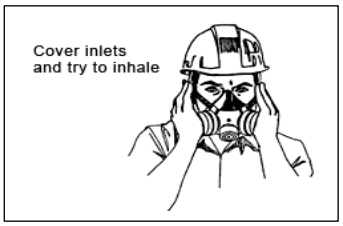
      d. Quantitative fit testing can be used for any type of tight-fitting respirator

   iii. Seal testing is performed when you first don the respirator mask.



      a. **Positive pressure test:** Close the exhalation valve and exhale gently into the face piece. The face fit is considered satisfactory if a slight positive pressure can be built up inside the face piece without any evidence of outward leakage of air at the seal. For most respirators,

this method of leak testing requires the wearer to place their handover the exhalant valve cover to perform this test.



b. **Negative pressure test:** Close off the inlet opening of the canister or cartridge(s) by covering with the palm of the hand(s), inhaling gently so that the face piece collapses slightly, and hold the breath for 10 seconds. If the face piece remains in its slightly collapsed condition and no inward leakage of air is detected, the tightness of the respirator is considered satisfactory.

6. Record Keeping

   a. Department records of respirator training, Medical authorization and Fit Test shall be kept for at least the duration of employment. These records shall include the following minimal information:

      i. Name, social security number, and shall be initialed by the employee
      ii. Job title
      iii. Department, work location, supervisor's name
      iv. Date of training or testing
      v. Date of medical evaluation
      vi. Type of respirator used
      vii. Success or failure of person to obtain satisfactory fit if a quantitative fitting test was performed
      viii. Respirator protection factor based upon test results if a quantitative fitting test was performed
      ix. Name of person performing the training or testing
      x. The presence of facial hair, long hair or side burns, etc.
      xi. Wearer's need for glasses or other protection
      xii. Other pertinent information

7. Maintenance, Care and Inspection of Respiratory Protective Devices

   a. When a respirator is issued to an individual, that individual is responsible for primary maintenance and care of the respirator. Equipment shall be properly maintained to retain its original effectiveness.

      i. All respirators shall be inspected routinely before and after each use.

      ii. A respirator that is not routinely used but kept ready for emergency use shall be inspected after each use and at least monthly by the employee to assure that it is in satisfactory working condition.

      iii. Self-contained breathing apparatus shall be inspected monthly. Air and oxygen cylinders shall be fully charged according to the manufacturer's instructions. It shall be determined that the regulator and warning devices function properly. A tag attached to the assembly shall be initialed by the inspector.

   b. Respirator inspection shall include a check of the tightness of connections and the condition of the face piece, headbands, valves, connecting tube, and canisters. Rubber or elastomer parts shall be inspected for pliability and signs of deterioration. Stretching and manipulating rubber or elastomer parts with a massaging action will keep them pliable and flexible, and prevent them from hardening or stiffening during storage.

   c. Respirators issued to specific individuals shall be cleaned and disinfected as frequently as necessary to insure that skin-penetrating and dermatitis-causing contaminants are

removed from respirator surfaces. Respirators shall be cleaned and disinfected after each use.

i. The following procedure is recommended for cleaning and disinfecting respirators:

a. Remove any filters, cartridges, or canisters
b. Wash face piece and breathing tube in a cleaner-disinfectant solution. A brush may be used to facilitate dirt removal
c. Rinse completely in clean, warm water
d. Air dries in a clean area
e. Clean other respirator parts as recommended by the manufacturer
f. Inspect valves, head straps, and other parts; replace defective parts with new ones
g. Insert new filters, cartridges or canisters periodically as specified by the manufacturer; make sure the seal is tight
h. Place in plastic bag or other closed container for storage

ii. Cleaner-disinfectant solution may be commercially prepared solutions; which are followed by a clean, warm-water rinse and air dried; or respirators may be washed in a liquid detergent solution. After washing, additional disinfection may, if desired, be provided by dipping the mask in one of the following disinfectant solutions, followed by rinsing and air drying:

a. Hypochlorite solution (50 ppm chlorine) for 2 (two) minutes
b. Aqueous iodine solution (50 ppm iodine) for 2 (two) minutes

iii. Replacement or repair shall be done only by experienced persons using parts designed for the respirators. No attempt shall be made to replace components or to make adjustments or repairs beyond the manufacturer's recommendations. Reduction or admission valves or regulators shall be returned to the manufacturer or to a trained technician for adjustment or repair.

d. Respirator storage shall be as follows:

i. After inspection, cleaning, and necessary repair, respirators shall be stored to protect against dust, sunlight, heat, extreme cold, excessive moisture, or damaging chemicals and other contaminants. Routinely used respirators, such as dust respirators, may be placed in ziplock bags. Respirators should not be stored in such places as lockers or tool boxes unless they are in containers or cartons.

ii. Respirators shall be packed or stored so the face piece and exhalation valve will not be damaged by being subjected to crushing or cramming.

e. Respirator Inspections

i. Frequent random inspections shall be conducted by supervisors to assure that respirators are properly selected, used, cleaned and maintained.

ii. Respirators used routinely will be inspected during cleaning. Experienced personnel shall replace worn or deteriorated parts with parts designed for the respirator. No attempt shall be made to replace components or to make adjustments or repairs beyond the manufacturer's recommendations.

8. Medical Evaluations

a. Workers shall not be assigned to tasks requiring the use of respirators unless it has been determined by medical evaluation that they are physically able to perform their work while wearing the prescribed respiratory protection. Medical evaluations shall be completed initially prior to fit test or respirator usage.

b. The elements of this medical evaluation shall be the responsibility of a physician or other licensed health care professional. This evaluation will consist of a Medical Evaluation questionnaire (Appendix C) and pulmonary function screening. It may also include other procedures, such as tests of the cardiovascular and respiratory systems, which the medical examiner considers useful in evaluating the ability to use the respirators. Appendix B is the Medical Authorization for Respirator Use form which must be completed. This form must be reviewed and signed by the health care professional doing the evaluation. The medical questionnaire and examinations shall be administered confidentially during the employee's normal working hours or at a time and place convenient to the employee.

c. The following information must be provided to the physician or other licensed health care professional before a recommendation is made concerning an employee's ability to use a respirator.

    i. The type and weight of the respirator to be used by the employee
    ii. The duration and frequency of the respirator use (including use for rescue and response)
    iii. The expected physical effort
    iv. Additional protective clothing and equipment to be worn
    v. Temperature and humidity extremes that may be encountered

d. Follow-up medical evaluations shall be provided if:

    i. An employee demonstrates the need for a follow-up medical exam as determined by the physician or other licensed health care professional
    ii. The follow-up medical evaluation shall include any medical tests, consultations, or diagnostic procedures that the physician or other licensed health care professional deems necessary to make a final determination

9. Air Quality

a. Compressed breathing air, used for respiration shall meet the following requirements:

    i. Cylinders shall be tested and maintained as prescribed in the Shipping Container Specifications of the Department of Transportation (49 CFR 178).

    ii. Breathing air for respirators may be supplied from cylinders or air compressor meeting the specification for grade D breathing air as defined in American National Standards Institute (ANSI) Standard Z86.1; Compressed Gas Association (CGA) Specification G-7.1, viz.: oxygen 19.5-23.5 percent, hydrocarbons (condensed) less than 5 mg/m3, carbon monoxide less than 10 ppm, and carbon dioxide less than 1000 ppm.

    iii. Centurion Power will only use compressed air cylinders for breathing air supplied by a certified vendor. The use of compressor for supplying breathing air is not allowed for Centurion Power projects.

        a. The air quality must be checked and a certificate issues by the breathing air supplier.

iv. Airline couplings shall be incompatible with outlets for other gas systems to prevent inadvertent connection of airline respirators with non-breathing air equipment.

10. Program Evaluation

a. The Safety Department shall conduct annual evaluations of the workplace to ensure that the written respiratory protection program is being properly implemented, and to consult employees to ensure that they are using respirators properly. The evaluation shall assess the following factors:

i. Respirator fit
ii. Appropriate respirator selection for the hazards present
iii. Proper respirator use under the workplace conditions the employee encounters
iv. Proper respirator maintenance
v. Other factors if deemed necessary

V. REFERENCES

1. Respiratory Protection Standard, 29 CFR 1910.134, Cal/OSHA T8 CCR 5144

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Appendix A

Information for Employees Using Respirators When Not Required Under this Policy

Respirators are an effective method of protection against designated hazards when properly selected and worn. Respirator use is encouraged, even when exposures are below the exposure limit, to provide an additional level of comfort and protection for workers. However, if a respirator is used improperly or not kept clean, the respirator itself can become a hazard to the worker. Sometimes, workers may wear respirators to avoid exposures to hazards, even if the amount of hazardous substance does not exceed the limits set by OSHA standards. If the employee provides their own respirator, they need to take certain precautions to be sure that the respirator itself does not present a hazard.

You should do the following:

1. Read and heed all instructions provided by the manufacturer on use, maintenance, cleaning and care, and warnings regarding the respirators limitations.
2. Choose respirators certified for use to protect against the contaminant of concern. NIOSH, the National Institute for Occupational Safety and Health of the U.S. Department of Health and Human Services, certifies respirators. A label or statement of certification should appear on the respirator or respirator packaging. It will tell you what the respirator is designed for and how much it will protect you.
3. Do not wear your respirator into atmospheres containing contaminants for which your respirator is not designed to protect against. For example, a respirator designed to filter dust particles will not protect you against gases, vapors, or very small solid particles of fumes or smoke.
4. Keep track of your respirator so that you do not mistakenly use someone else's respirator.

Print Name: _____ Date:_____

Signature: _____

Appendix B

Medical Determination Form

Employee Name: _____ Date: _____

It has been determined that _____ is medically able to use respiratory protective devices.

List any limitations that apply to the use of respiratory protective devices, or needs for a follow-up medical evaluation:

Limitations if any _____

_____

_____

_____

_____

Physicians Signature: _____ Date _____.

Employees Signature: _____ Date _____.

Appendix C

OSHA Respirator Medical Evaluation Questionnaire

This is mandatory for all respirator wearers to fill out and present to the Medical provider doing the evaluation. This is to be kept confidential between the Medical provider and Employee.

Name: Email:		Phone # ( )
Address:	City:	State: Zip Code:
Supervisor's Name:		Phone #: ( )

To the employer: Answers to questions in Section 1, and to question 9 in Section 2 of Part A, do not require a medical examination.

To the employee: Your employer must allow you to answer this questionnaire during normal working hours or at a time and place that is convenient to you. To maintain your confidentiality, your employer or supervisor must not look at or review your answers, and your employer must tell you how to deliver or send this questionnaire to the health care professional who will review it.

Part A. Section 1. (Mandatory) The following information must be provided by every employee who has been selected to use any type of respirator (please print).

1	Today's Date: _____
2	Your Name: _____
3	Your Age (to the nearest year): _____
4	Sex: ❒ Male ❒ Female
5	Height: _____ feet _____ inches
6	Weight: _____ lbs.
7	Job Title: _____
8	A phone number where you can be reached by the Health Care professional who reviews this questionnaire (include area code): ( ) _____
9	Best time to contact you at this number: _____ ❒am ❒pm
10	Has your employer told you how to contact the Health Care professional who will review this questionnaire: ❒Yes ❒No
11	Check the type of respirator you will use: (you can check more than one category)
	❒ a. N, R, or P disposable respirator (filter-mask, non-cartridge type only)
	❒ b. Other type (for example, half- or full-face piece type, powered-air purifying, supplied-air, self-contained breathing apparatus)
12	Have you worn a respirator? ❒Yes ❒No
	If yes, what type(s): _____

Part A. Section 2. (Mandatory) Questions 1 through 9 below must be answered by every employee who has been selected to use any type of respirator.

1	Do you currently smoke tobacco or have you smoked tobacco in the last month?	❒Yes ❒No
2	Have you had any of the following conditions?	
	a. Seizures	❒Yes ❒No
	b. Diabetes (sugar disease)	❒Yes ❒No
	c. Allergic reactions that interfere with your breathing	❒Yes ❒No
	d. Claustrophobia (fear of closed in places)	❒Yes ❒No
	e. Trouble smelling odors	❒Yes ❒No
3	Have you ever had any of the following pulmonary or lung problems?	
	a. Asbestosis	❒Yes ❒No
	b. Asthma	❒Yes ❒No
	c. Chronic Bronchitis	❒Yes ❒No

	d.	Emphysema	❒Yes ❒No
	e.	Pneumonia	❒Yes ❒No
	f.	Tuberculosis	❒Yes ❒No
	g.	Silicosis	❒Yes ❒No
	h.	Pneumothorax	❒Yes ❒No
	i.	Lung Cancer	❒Yes ❒No
	j.	Broken Ribs	❒Yes ❒No
	k.	Any chest injuries or surgeries	❒Yes ❒No
	l.	Any lung problem that you have been told about	❒Yes ❒No
4	Do you currently have any of the following symptoms of pulmonary or lung illness?		
	a.	Shortness of breath	❒Yes ❒No
	b.	Shortness of breath when walking fast on level ground or walking up a slight hill or incline	❒Yes ❒No
	c.	Shortness of breath when walking with other people at an ordinary pace on level ground	❒Yes ❒No
	d.	Have to stop for breath when walking at your own pace on level ground	❒Yes ❒No
	e.	Shortness of breath when washing or dressing yourself	❒Yes ❒No
	f.	Shortness of breath that interferes with your job	❒Yes ❒No
	g.	Coughing that produces phlegm (thick sputum)	❒Yes ❒No
	h.	Coughing that wakes you early in the morning	❒Yes ❒No
	i.	Coughing that occurs mostly when you are lying down	❒Yes ❒No
	j.	Coughing up blood in the last month	❒Yes ❒No
	k.	Wheezing	❒Yes ❒No
	l.	Wheezing that interferes with your job	❒Yes ❒No
	m.	Chest pain when you breathe deeply	❒Yes ❒No
	n.	Any other symptoms that you think may be related to lung problems	❒Yes ❒No
5	Have you ever had any of the following cardiovascular or heart problems?		
	a.	Heart attack	❒Yes ❒No
	b.	Stroke	❒Yes ❒No
	c.	Angina	❒Yes ❒No
	d.	Heart failure	❒Yes ❒No
	e.	Swelling in your legs or feet (not caused by walking)	❒Yes ❒No
	f.	Heart arrhythmia (heart beating irregularly)	❒Yes ❒No
	g.	High blood pressure	❒Yes ❒No
	h.	Any other heart problem that you've been told about	❒Yes ❒No
6	Have you ever had any of the following cardiovascular or heart symptoms?		
	a.	Frequent pain or tightness in your chest	❒Yes ❒No
	b.	Pain or tightness in your chest during physical activity	❒Yes ❒No
	c.	Pain or tightness in your chest that interferes with your job	❒Yes ❒No
	d.	In the past two years, have you noticed your heart skipping or missing a beat	❒Yes ❒No
	e.	Heartburn or indigestion that is not related to eating	❒Yes ❒No
7	Do you currently take medication for any of the following problems?		
	a.	Breathing or lung problems	❒Yes ❒No
	b.	Heart trouble	❒Yes ❒No
	c.	Blood pressure	❒Yes ❒No
	d.	Seizures	❒Yes ❒No
8	If you've used a respirator, have you ever had any of the following problems? *(If you've never used a respirator, check the following space and go to question 9)*		❒Never Used

	a. Eye irritation	❒Yes ❒No
	b. Skin allergies or rashes	❒Yes ❒No
	c. Anxiety	❒Yes ❒No
	d. General weakness or fatigue	❒Yes ❒No
	e. Any other problem that interferes with your use of a respirator	❒Yes ❒No
9	Would you like to talk to the health care professional who will review this questionnaire about your answers to this questionnaire?	❒Yes ❒No

Questions 10 to 15 below must be answered by every employee who has been selected to use either a full-face piece respirator or a self-contained breathing apparatus (SCBA). For employees who have been selected to use other types of respirators, answering these questions is voluntary.

10	Have you ever lost vision in either eye (temporarily or permanently)?	❒Yes ❒No
11	Do you currently have any of the following vision problems?	
	a. Wear contact lenses	❒Yes ❒No
	b. Wear glasses	❒Yes ❒No
	c. Color blind	❒Yes ❒No
	d. Any other eye or vision problem	❒Yes ❒No
12	Have you ever had an injury to your ears, including a broken ear drum?	❒Yes ❒No
13	Do you currently have any of the following hearing problems?	
	a. Difficulty hearing	❒Yes ❒No
	b. Wear a hearing aid	❒Yes ❒No
	c. Any other hearing or ear problem	❒Yes ❒No
14	Have you ever had a back injury?	❒Yes ❒No
15	Do you currently have any of the following musculoskeletal problems?	
	a. Weakness in any of your arms, hands, legs, or feet	❒Yes ❒No
	b. Back pain	❒Yes ❒No
	c. Difficulty fully moving your arms and legs	❒Yes ❒No
	d. Pain or stiffness when you lean forward or backward at the waist	❒Yes ❒No
	e. Difficulty fully moving your head up or down	❒Yes ❒No
	f. Difficulty fully moving your head side to side	❒Yes ❒No
	g. Difficulty bending at your knees	❒Yes ❒No
	h. Difficulty squatting to the ground	❒Yes ❒No
	i. Climbing a flight of stairs or a ladder carrying more than 25 lbs.	❒Yes ❒No
	j. Any other muscle or skeletal problem that interferes with using a respirator	❒Yes ❒No

Part B Any of the following questions, and other questions not listed, may be added to the questionnaire at the discretion of the health care professional who will review the questionnaire.

1	In your present job, are you working at high altitudes (over 5,000 feet) or in a place that has lower than normal amounts of oxygen?	❒Yes ❒No
	If "yes," do you have feelings of dizziness, shortness of breath, pounding in your chest, or other symptoms when you're working under these conditions	❒Yes ❒No
2	At work or at home, have you ever been exposed to hazardous solvents, hazardous airborne chemicals (e.g., gases, fumes, or dust), or have you come into skin contact with hazardous chemicals	❒Yes ❒No
	If "yes," name the chemicals if you know them _____	
	_____	
3	Have you ever worked with any of the materials, or under any of the conditions, listed below?	
	a. Asbestos	❒Yes ❒No

b. Silica (e.g., in sandblasting) ❒Yes ❒No
c. Tungsten/cobalt (e.g., grinding or welding this material) ❒Yes ❒No
d. Beryllium ❒Yes ❒No
e. Aluminum ❒Yes ❒No
f. Coal (e.g., mining) ❒Yes ❒No
g. Iron ❒Yes ❒No
h. Tin ❒Yes ❒No
i. Dusty environments ❒Yes ❒No
j. Any other hazardous exposures ❒Yes ❒No
If "yes," describe these exposures _____

4 List any second jobs or side businesses you have _____

5 List your previous occupations _____

6 List your current and previous hobbies _____

7 Have you been in the military services? ❒Yes ❒No
If "yes," were you exposed to biological or chemical agents (either in training or combat)? ❒Yes ❒No

8 Have you been in the military services? ❒Yes ❒No

9 Other than medications for breathing and lung problems, heart trouble, blood pressure, and seizures mentioned earlier in this questionnaire, are you taking any other medications for any reason (including over-the-counter medications) ❒Yes ❒No
If "yes," name the medications if you know them _____

10 Will you be using any of the following items with your respirator(s)?
a. HEPA Filters ❒Yes ❒No
b. Canisters (for example, gas masks) ❒Yes ❒No
c. Cartridges ❒Yes ❒No

11 How often are you expected to use the respirator(s)?
(Mark yes or no for all answers that apply to you)
a. Escape only (no rescue) ❒Yes ❒No
b. Emergency rescue only ❒Yes ❒No
c. Less than 5 hours per week ❒Yes ❒No
d. Less than 2 hours per day ❒Yes ❒No
e 2 to 4 hours per day ❒Yes ❒No
f. Over 4 hours per day ❒Yes ❒No

12 During the period you are using the respirator(s), is your work effort?
a. Light (less than 200 kcal per hour) ❒Yes ❒No
If "yes," how long does this period last during the average shift _____ hrs. _____ min
Examples of a light work effort are sitting while writing, typing, drafting, or performing light assembly work; or standing while operating a drill press (1-3 lbs.) or controlling

machines.

b. Moderate (200 to 350 kcal per hour) ❒Yes ❒No
If "yes," how long does this period last during the average shift _____ hrs. _____ min
Examples of moderate work effort are sitting while nailing or filing; driving a truck or bus in urban traffic; standing while drilling, nailing, performing assembly work, or transferring a moderate load (about 35 lbs.) at trunk level; walking on a level surface about 2 mph or down a 5-degree grade about 3 mph; or pushing a wheelbarrow with a heavy load (about 100 lbs.) on a level surface

c. Heavy (above 350 kcal per hour ❒Yes ❒No
If "yes," how long does this period last during the average shift _____ hrs. _____ min
Examples of heavy work are lifting a heavy load (about 50 lbs.) from the floor to your waist or shoulder; working on a loading dock; shoveling; standing while bricklaying or chipping castings; walking up an 8-degree grade about 2 mph; climbing stairs with a heavy load (about 50 lbs.).

13 Will you be wearing protective clothing and/or equipment (other than the respirator) when you're using your respirator? ❒Yes ❒No
If "yes," describe this protective clothing and/or equipment _____

14 Will you be working under hot conditions (temperatures exceeding 77° F)? ❒Yes ❒No

15 Will you be working under humid conditions? ❒Yes ❒No

16 Describe the work you'll be doing while you're using your respirator(s)

17 Describe any special or hazardous conditions you might encounter when you're using your respirator(s) (for example, confined spaces, life-threatening gases):

18 Provide the following information, if you know it, for each toxic substance that you'll be exposed to when you're using your respirator(s)

Name of the first toxic substance _____
Estimated maximum exposure level per shift _____
Duration of exposure per shift _____
Name of the second toxic substance _____
Estimated maximum exposure level per shift _____
Duration of exposure per shift _____
Name of the third toxic substance _____
Estimated maximum exposure level per shift _____
Duration of exposure per shift _____

The name of any other toxic substances that you'll be exposed to while using your respirator

19 Describe any special responsibilities you'll have while using your respirator(s) that may

☐ affect the safety and well-being of others (for example, rescue, and security)

_____
_____
_____
_____

Appendix D

Filter Cartridge Selection and Change Procedures

It is the dual responsibility of the Supervisor, employee and the Safety department to determine appropriate Filter/Cartridges for the hazard and develop a change schedules for filter/cartridges used in air purifying respirators. The cartridge change schedule requirement applies only to respirators used for protection against gases or vapors, not particulates.

Selection

The Selection of the filter/cartridges is critical that it matches the airborne contaminate in the atmosphere that the employee will encounter. All filter/cartridges are color coded for the airborne contaminate. Contaminants come in different forms – generally: aerosols (solids/particles) and gases (gases, vapors). You can choose between the filter types to protect against one of these forms or a combination of both of them. Solids/particles: dusts, fibers, fumes, microorganisms (e.g. viruses, bacteria, fungi, spores) and mists. Gaseous substances: gases and vapors.

The following table shows you the color coding of filters according to NIOSH – which helps you to determine which filter-type is needed for the contaminants you are dealing with.

Color Code	Filter Type	Contaminants Present
	OV	Organic Vapor
	AG	Acid Gas (substances need to be determined) Example: Chlorine, hydrogen chloride, sulphide dioxide, chlorine dioxide
	OV/AG	Organic Vapors / Acid Gas
	AM/MA	Ammonia / Methylamine
	MV	Mercury Vapor
		Multi-Gas and Vapor
	P100	Particulates

Example: OV/AG-P100 

A filter with the above mentioned color code is suitable for the following contaminants:

- OV Gases and vapors of organic compounds
- AG Acid Gas
- P100 Particles (oil and non-oil)

Warning: If the contaminate is not known or the Oxygen levels ae below 19.5% then air purifying respirators should not be used.

Change Procedures

If available, the respirator wearer shall use the End-of-Service-Life Indicator (ESLI) to determine when to change out air-purifying elements.

If no ESLI is available for a particular the following methods can be used to determine and appropriate change schedule:

1. Manufacturers Information:
    a. Contact the manufacturer of the respirator or cartridge to determine the appropriate change schedule.
2. Rule of Thumb:
    a. If the concentration of the chemical is less than 200 ppm and the chemical's boiling point is greater than 70°C, you can expect a service life of 8 (eight) hours at a normal work rate.
    b. Service life is inversely proportional to work rate.
    c. Reducing concentrations by a factor of 10 will increase the service life by a factor of 5 (five).
    d. Humidity above 85% will reduce service life by 50%.

***Note: This should NOT be the sole method of determining service life. It can only be used as a guide. ***

The following chemical specific standards are already addressed by OSHA:

Acrylonitrile 1910.1045(h)(2)(ii)	End-of-service life or end of shift (whichever occurs first)
Benzene 1910.1028(g)(2)(ii)	Every 1, 2 or 4 hours dependent upon concentration according to Table and at beginning of each shift
Butadiene 1910.1051(h)(2)(ii)	Every 1, 2 or 4 hours dependent upon concentration according to Table and at beginning of each shift
Formaldehyde 1910.1048(g)(2)(ii)	For cartridges, every three hours or end of shift (whichever is sooner); for canisters, every 2 or 4 hours according to the schedule
Vinyl chloride 1910.1017(g)(3)(ii)	End-of-service life or end of shift in which they are first used (whichever occurs first)
Methylene chloride 1910.1052(g)(2)(ii)	Canisters may only be used for emergency escape and must be replaced after use

If there are any questions with developing a cartridge change schedule the Safety Department should be notified and appropriate measures will be taken to develop an appropriate change schedule.

Centurion Power

HSE MANUAL

SECTION #HSE 23

Subcontractor Management Policy

Revision 0
6/1/2024

I. SCOPE

1. Centurion Power is committed to providing a safe and healthy work environment for our employees and subcontractors working for Centurion Power.
2. The purpose of this program is to ensure that Centurion Power continues to improve subcontractor health, safety and environmental performance and to establish a standard for pre-qualification, evaluation/selection and development of our subcontractors. This policy applies to all subcontractors and all Centurion Power locations.

II. GENERAL POLICY

1. All Centurion Power subcontractors are to be managed in accordance with this program. The use of subcontractors must be pre-approved by Centurion Power. All subcontractors will be categorized by size and type of Contractor as follows:
    a. Small or individual subcontractor is where one or two persons work as a subcontractor performing work for Centurion Power on client sites. Note: Small contractors will not be required to complete the
    b. Medium subcontractor is a company that has up to 10 employees that provide services to Centurion Power on client's site.
    c. Large subcontractor is a company that has more than 10 employees that provide services to Centurion Power on client's site.
2. Approval requirements include:
    a. A formal safety review of the medium and large subcontractor's safety process by Centurion Power safety department.
    b. The scope of the review will be commensurate with the hazards and risk exposure.
    c. All size Subcontractor will be oriented to the safety policies, expectations and requirements of Centurion Power (Attachment 2)
    d. The subcontractor agrees to abide by our Drug and Alcohol policy and onsite safety rules throughout the duration of the work.
3. Any subcontractor that has a 'Non-Approved' safety status will not be used on any Centurion Power site.

III. PROCEDURES

1. **Pre-Qualification of Subcontractors:** Medium and large subcontractors will be pre-qualified by reviewing their safety programs, safety training documents and safety statistics. Submitted through the Centurion Power Prequalification form. (Attachment 1)
2. **Prequalification Evaluation of Safety Metrics**: Acceptable safety metrics score will be used as criteria for prequalifying and selecting subcontractors. The safety metrics and scoring will consider:

Evaluation items	Grading Criteria	Point Available
1) Completion of Centurion Power Prequalification form (PQF)	Yes No	10 0
2) Experience Modifier Rate (EMR)	Less than .98 .99 - 1.05 1.06 or Greater	15 10 5
3) Safety stat review OSHA & MSHA - Total Injury Incident Rate (TRIR)	.50 or less .51 – 1.00 1.01 – 2.00 2.01 or Greater	15 12 10 5
4) MSHA or OSHA Citations given?	Yes No	5 10
5) Any work related fatalities in the last three years?	Yes No	5 10
6) Does the training criterion match the type of work being performed?	Yes No	10 0
7) Were the requested documents provided with the PQF?	Yes No	10 0
8) Do the OSHA 300 and 300A logs match the information provided on the PQF?	Yes No	10 0
9) Does the Certificate of Insurance (COI) match Centurion Power requirements? (Compared to sample COI)	Yes No	10 0

IV. EVALUATION RATING AND ACCEPTANCE

1. The subcontractor rating system will have five designations:

Grade	Criteria	Additional requirements
A	Equal to or Greater than 90 points	No Restrictions or additional requirements
B	Between 85 and 89 points	Mitigation plan must be documented and approved by Centurion Power Safety Department.
C	Between 81 and 84 points	Mitigation plan must be documented and approved Centurion Power Safety Department; management approval in writing.
D	Between 71 and 80 points	Mandatory commitment meeting with senior subcontractor management present; mitigation plan documented and approved by Centurion Power Safety Department; management approval in writing; trained subcontractor safety personnel on site during work regardless of number of workers.
F	Less than 70 points	Not to be used

2. Once each subcontractor has been evaluated and scored, Centurion Power safety will provide management the scores/ranking. This list will reside on the internal web site The Well in the safety page.
3. Centurion Power reserves the right to change a subcontractor's status to 'Non-Approved' if the subcontractor shows insufficient progress towards accepted mitigation plan or other agreed upon criteria.

V. SUBCONTRACTOR INVOLVEMENT

1. Contractors are required to follow or implement the work practices and systems described below while performing work at Centurion Power worksites:
    a. Attend a safety orientation, pre-job meeting or kick-off meeting provided by Centurion Power prior to any work beginning
    b. Monitor employees for substance abuse and report nonconformities to Centurion Power
    c. Ensure personnel have the required training and competency for their work
    d. Participate in Centurion Power tailgate safety meetings, job safety analysis or hazard assessments, on the job safety inspections and stretch, flex and bend warm up exercises.
    e. Perform a pre-job safety inspection that includes equipment
    f. Report all injuries, spills, property damage incidents and near misses
    g. Comply with onsite and Owner/Client safety rules
    h. Implement Centurion Power safety practices and processes as applicable
    i. Clean up and restore the worksite after the job is over
    j. Ensure compliance with regulations at all times
    k. Post-job safety performance reviews shall be conducted for subcontractors

REVISION DATE	REVIEW DATE	REVISION NUMBER	REVISION COMMENTS	AUTHOR
6/1/2024	6/1/2024		Created document	Tony Asciutto

Attachment 1

CENTURION POWER PREQUALIFICATION FORM (PQF)

Section 1 GENERAL INFORMATION		
Company Name:	Telephone:	
Street Address:	Mailing Address:	
Contact Person:	Email:	
Telephone:		
Insurance Contact :		
Title:	Telephone:	Fax:
Insurance Carrier(s):		
Name	Type of Coverage	Telephone
Are you self-insured for Workers Compensation Insurance? Yes ☐ No ☐		
PQF Completed by:	Title:	Date:
Telephone:	Email:	

Section 2
ORGANIZATION

Form of Business: Sole Owner ☐ Partnership ☐ Corporation ☐

Describe Services Performed:

- ☐ Construction
- ☐ Construction Design
- ☐ Original Equipment Manufacturer/Installer
- ☐ Maintenance
- ☐ Specialty Maintenance
- ☐ Manpower and Resources
- ☐ Original Equipment Manufacturer and Maintenance
- ☐ Service Work (e.g., janitorial, clerical, etc.)
- ☐ Turnaround
- ☐ Engineering
- ☐ Other: _____

Describe in detail the work activities performed by your company. _____

_____

_____

Section 3
HEALTH & SAFETY PERFORMANCE

Workers Compensation Experience Modification Rate (EMR) Data:

EMR is: Check appropriate box	EMR for last three (3) years:
☐ Interstate Rate ☐ Intrastate Rate ☐ Monopolistic State Rate ☐ Dual Rate	Year: EMR: Year: EMR: Year: EMR:
State of Origin:	*EMR Anniversary Date:*
North American Industrial Classification System (NAICS):	

Injury and Illness Data:

Total company employee hours worked last three (3) years (excluding subcontractors)	Hours / Year	Year:	Year:	Year:
	OSHA			
	MSHA			
	TOTAL			

Provide data (excluding subcontractor) using your OSHA 300 Forms from the past three (3) years:

OSHA	Year:		Year:		Year:	
	No.	**Rate**	**No.**	**Rate**	**No.**	**Rate**
1. Fatalities (Column G, OSHA 300 Log) *Rate = Number of Fatalities x 200,000 ÷ Total Employee Hours*						
2. Other Injury & illness cases Medical Treatment Only (Column J, OSHA 300 Log). Rate = Restricted Cases x 200,000 ÷ Total Employee Hours						
3. Injury & illness cases involving job transfers or work restrictions (Column I, OSHA 300 Log). *Rate = Restricted Cases x 200,000 ÷ Total Employee Hours*						
4. Injury and illness cases involving days away from work (Column H, OSHA 300 Log). *Rate = Lost Work Cases x 200,000 ÷ Total Employee Hours*						
5. Total OSHA Recordable Injury and Illness Rate (Sum of M 1-6, OSHA 300 Log) *Rate = Total Injuries and Illnesses x 200,000 ÷ Total Employee Hours*						

Provide data (excluding subcontractor) using your MSHA reports from the past three (3) years:

MSHA	Year:		Year:		Year:	
	No.	**Rate**	**No.**	**Rate**	**No.**	**Rate**
1. Fatalities *Rate = Number of Fatalities x 200,000 ÷ Total Employee Hours*						
2. Medical Treatment Only *Rate = Number of Cases x 200,000 ÷ Total Employee Hours*						
3. Injury & illness cases restricted work activity *Rate = Number of Cases x 200,000 ÷ Total Employee Hours*						
4. Injury & illness cases with days away *Rate = = Number of Cases x 200,000 ÷ Total Employee Hours*						
5. Total OSHA Recordable Injury and Illness *Rate = Total Injuries and Illnesses x 200,000 ÷ Total Employee Hours*						

Have you received any regulatory (EPA, MSHA, OSHA, etc.), civil or criminal, citations in the last three (3) years?

Yes ☐ **No** ☐ **If yes, please attach an explanation of citation.**

Section 4 ENVIRONMENTAL, HEALTH & SAFETY MANAGEMENT	
Name of highest ranking Health & Safety professional in the company:	
Name:	**Title:**
Telephone:	**Email:**
This person reports to:	**Title:**
Do you have or provide:	
Full time Safety/Health Director	**Yes** ☐ **No** ☐
Full time Site Safety/Health Supervisor	**Yes** ☐ **No** ☐
Full time Job Safety/Health Coordinator	**Yes** ☐ **No** ☐
Do you have or provide:	
Safety/Health incentive program	**Yes** ☐ **No** ☐
Company paid safety/health training	**Yes** ☐ **No** ☐

Section 5 HEALTH & SAFETY PROGRAMS/PROCEDURES	
Do you have a written Health & Safety Program?	**Yes** ☐ **No** ☐
Does the program address the following key elements?	
Management commitment and expectations	**Yes** ☐ **No** ☐
Employee participation	**Yes** ☐ **No** ☐
Accountabilities and responsibilities for managers, supervisors, and employees	**Yes** ☐ **No** ☐
Resources for meeting safety, health & environmental requirements	**Yes** ☐ **No** ☐
Periodic safety and health performance appraisals for all employees	**Yes** ☐ **No** ☐
Safety & Health Recognition Program	**Yes** ☐ **No** ☐
Hazard recognition and control	**Yes** ☐ **No** ☐
Does the program satisfy your responsibility under the law for:	
Ensuring your employees follow the safety rules of the job site and client?	**Yes** ☐ **No** ☐
Advising Centurion Power of any unique hazards presented by the contractor's work, and of any hazards found by the contractor?	**Yes** ☐ **No** ☐
Does the program include work practices and procedures for the following programs:	
Equipment Lockout, Tagout (LOTO)	**Yes** ☐ **No** ☐ **N/A** ☐
Confined Space Entry	**Yes** ☐ **No** ☐ **N/A** ☐
Injury & Illness Recording	**Yes** ☐ **No** ☐ **N/A** ☐
Fall Protection	**Yes** ☐ **No** ☐ **N/A** ☐
Personal Protection Equipment	**Yes** ☐ **No** ☐ **N/A** ☐
Portable Electrical /Power Tools	**Yes** ☐ **No** ☐ **N/A** ☐
Vehicle Safety	**Yes** ☐ **No** ☐ **N/A** ☐
Compressed Gas Cylinders	**Yes** ☐ **No** ☐ **N/A** ☐
Electrical Equipment Grounding Assurance	**Yes** ☐ **No** ☐ **N/A** ☐
Powered Industrial Vehicles (Cranes, Forklift, JLGs, etc.)	**Yes** ☐ **No** ☐ **N/A** ☐
Housekeeping	**Yes** ☐ **No** ☐ **N/A** ☐
Accident/Incident Reporting	**Yes** ☐ **No** ☐ **N/A** ☐
Unsafe Condition Reporting	**Yes** ☐ **No** ☐ **N/A** ☐
Emergency Preparedness, including Evacuation Plan	**Yes** ☐ **No** ☐ **N/A** ☐

Waste Disposal/Waste Minimization/Spill Prevention	Yes ☐ No ☐ N/A ☐
Back Injury Prevention	Yes ☐ No ☐ N/A ☐
HAZWOPER Training	Yes ☐ No ☐ N/A ☐
Heat Stress Prevention	Yes ☐ No ☐ N/A ☐
Scaffold Building/Scaffold Use	Yes ☐ No ☐ N/A ☐
General NDT & Radiography	Yes ☐ No ☐ N/A ☐
Do you have written programs for the following:	
Hearing Conservation	Yes ☐ No ☐ N/A ☐
Respiratory Protection	Yes ☐ No ☐ N/A ☐
If applicable , have employees been:	
Trained	Yes ☐ No ☐ N/A ☐
Fit Tested	Yes ☐ No ☐ N/A ☐
Medically approved	Yes ☐ No ☐ N/A ☐
Hazard Communication	Yes ☐ No ☐ N/A ☐
Have employees been trained?	Yes ☐ No ☐ N/A ☐
Do you have a substance abuse program?	Yes ☐ No ☐
If yes, does it include the following?	Yes ☐ No ☐
• Pre-placement Testing	Yes ☐ No ☐
• Random Testing	Yes ☐ No ☐
• Testing for Cause	Yes ☐ No ☐
• DOT Testing	Yes ☐ No ☐
• Post Incident Testing	Yes ☐ No ☐
• Annual Testing	Yes ☐ No ☐
Do you perform background checks covering the previous seven (7) years?	Yes ☐ No ☐
Do your employees read, write and understand English such that they can perform their job tasks safely without an interpreter?	Yes ☐ No ☐
If no, provide a description of your plan to assure that they can safely perform their jobs.	
Medical	
Do you conduct medical examinations for:	
• Pre-placement	Yes ☐ No ☐ N/A ☐
• Pre-placement, job capability	Yes ☐ No ☐ N/A ☐
• Hearing function (Audiograms)	Yes ☐ No ☐ N/A ☐
• Pulmonary	Yes ☐ No ☐ N/A ☐
• Respiratory	Yes ☐ No ☐ N/A ☐
Describe how you will provide first aid and other medical services for your employees while on-site. Please specify who will provide these services.	
Do you have personnel trained to perform First Aid & CPR?	Yes ☐ No ☐
Do you hold site safety, health and environmental meeting for:	
• Field Supervisors	Yes ☐ No ☐

Frequency	D ☐ W ☐ M ☐ As needed ☐
• Employees	Yes ☐ No ☐
Frequency	D ☐ W ☐ M ☐ As needed ☐
• New Hires	Yes ☐ No ☐
Frequency	D ☐ W ☐ M ☐ As needed ☐
• Subcontractors	Yes ☐ No ☐
Frequency	D ☐ W ☐ M ☐ As needed ☐
Are the safety, health and environmental meetings documented?	Yes ☐ No ☐
Personal Protection Equipment (PPE)	
Is applicable PPE provided to employees?	Yes ☐ No ☐
Do you have a program to ensure that PPE is inspected and maintained?	Yes ☐ No ☐
Do you have a corrective action process for addressing individual safety and health performance deficiencies?	Yes ☐ No ☐
Equipment and Materials:	
Do you have a system for establishing applicable health, safety, and environmental specifications for acquisition of materials and equipment?	Yes ☐ No ☐ N/A ☐
Do you conduct inspections on operating equipment (e.g., cranes, forklifts, JLGs) in compliance with regulatory requirements?	Yes ☐ No ☐ N/A ☐
Do you maintain operating equipment in compliance with regulatory requirements?	Yes ☐ No ☐ N/A ☐
Do you maintain the applicable inspection and maintenance certification records for operating equipment?	Yes ☐ No ☐ N/A ☐
Subcontractors	
Do you use subcontractors? If no, please skip this section.	Yes ☐ No ☐
Do you use safety, health and environmental performance criteria in selection of subcontractors?	Yes ☐ No ☐ N/A ☐
Do you evaluate the ability of subcontractors to comply with applicable safety, health, and environmental requirements as part of the selection process?	Yes ☐ No ☐ N/A ☐
Do your subcontractors have a written safety, health and environmental program?	Yes ☐ No ☐ N/A ☐
Inspections and Audits	
Do you conduct Safety, Health & Environmental inspections?	Yes ☐ No ☐
Do you conduct Safety, Health & Environmental program audits?	Yes ☐ No ☐
Are corrections of deficiencies documented?	Yes ☐ No ☐

Section 6 SAFETY, HEALTH & ENVIRONMENTAL TRAINING	
Safety, Health & Environmental Training	
Do you know the regulatory safety, health and environmental training requirements for your employees?	Yes ☐ No ☐
Have your employees received the required safety, health and environmental training and retraining and is it documented?	Yes ☐ No ☐
Do you have a specific safety, health and environmental training program for supervisors?	Yes ☐ No ☐
Are all employees trained in the work practices needed to safely perform his/her job?	Yes ☐ No ☐
Is each employee instructed in the known potential of fire, explosion, or toxic release hazards related to his/her job, the process and the applicable provisions of the emergency action plan?	Yes ☐ No ☐

Section 7
INFORMATION/DOCUMENT SUBMITTAL

Please provide copies of checked items with the completed PQF:

√ EMR documentation from your insurance carrier	☐ Safety, Health & Environmental Training Schedule (Sample)
√ Insurance Certificate(s)	☐ Safety, Health & Environmental Training for Supervisors (Outline)
√ OSHA 300 Logs (Past 3 Years)	☐ Copy of Contractor's License
☐ Safety, Health & Environmental Program (outline)	☐ Organization Chart
☐ Safety, Health & Environmental Incentive Program	☐ List of major equipment (e.g., cranes, JLGs, Forklifts) your company has available for work at this facility
☐ Substance Abuse Program (Include substances tested & levels)	☐ Equipment - Lockout and Tagout Training (LOTO)
☐ Hazard Communication Program	☐ Confined Space Entry Procedure
☐ Respiratory Protection Program	☐ Fall Protection, Scaffold Use, Scaffold Building
☐ Housekeeping Policy	☐ Personal Protection Equipment Program
☐ Accident/Incident Investigation Procedure	☐ Portable Electric/Power Equipment
☐ Unsafe Condition Reporting Procedure	☐ Vehicle Safety
☐ Safety, Health & Environmental Inspection Form	☐ Compressed Gas Cylinders
☐ Safety, Health &Environmental Orientation (outline)	☐ Electrical Equipment Grounding Assurance
☐ Safety, Health & Environmental Training Program (outline)	☐ Emergency Preparedness including evacuation plan
☐ Example of Employee Safety, Health & Environmental Training Records	☐ Waste Disposal
☐ Workforce Development Policies	☐ Back Injury Prevention
☐ NDT &Radiography Program	☐ Heat Stress Prevention

Please provide the name and title of the Company Officer responsible for assuring the accuracy of this document:

Name: _____ Title: _____

(Please Print)

_____ _____

(Signature) (Date)

EVALUATION -- Centurion Power USE ONLY--	
Score	
Criteria	Score
1) Completion of Centurion Power Prequalification form (PQF)	
2) Experience Modifier Rate (EMR)	
3) Safety stat review OSHA & MSHA - Total Injury Incident Rate (TRIR)	
4) MSHA or OSHA citations given?	
5) Any work related fatalities in the last three (3) years?	
6) Does the training criterion match the type of work being performed?	
7) Were the requested documents provided with the PQF?	
8) Do the OSHA 300 and 300A logs match the information provided on the PQF?	
9) Does the Certificate of Insurance (COI) match Centurion Power requirements? (Compared to sample COI)	
Total Score / Grade	

Centurion Power Approvals (if required by score)		
Department	**Signature**	**Date**
H&S Director		
Vice President or Higher		
Legal		
Human Resources		
Other as required		

Attachment 2

Centurion Power Subcontractor's Safety Expectations

FORWARD

Centurion Power is proud of its commitment to providing a safe workplace and to conducting business in a manner that protects the environment and property of others. Thank you for your commitment to these principles and to providing safe and efficient services to Centurion Power .

This handbook is provided solely to communicate Centurion Power general Health and Safety expectations to contractors in a consolidated fashion. The information in this handbook is advisory in nature and does not represent nor replace each contractor's health and safety policies and procedures. This handbook does not replace or limit health and safety requirements imposed by Federal, State, or local laws or to preempt standard industry practice.

Regardless of any operational urgency or importance, work at Centurion Power sites should not be conducted at the expense of safety, the environment, or the health of workers or public. Contractors must take adequate measures to protect all persons and property, and to comply with all applicable Federal, State, & local regulations. All contractors must train, supervise, and direct their employees to work in a safe and environmentally conscious manner.

All contractors should review this Handbook with their respective employees, consultants, agents and subcontractors, and acknowledge their understanding of the expectations contained within by signing the Contractor Acknowledgement Form attached at end of this document. The contractor should follow their own safety program and examine the related standards and regulations applicable to their services contained in this handbook.

Concerns regarding violations or safety issues can be confidentially reported directly to the Director of Safety at safety@atwell-group.com.

I. GENERAL REQUIREMENTS

1. **Contractor Responsibilities:** All incidents are preventable. Safety and compliance shall not be compromised for convenience, production or expedience.

    a. Do it safely or don't do it at all

    b. There is always time to do it right

    c. When in doubt, find out

    Always:

    a. Operate in a safe and controlled manner

    b. Follow safe work practices and procedures

    c. Ensure safety devices are in place and working

    d. Use tools and equipment only for the purpose for which they were designed

    e. Meet or exceed Centurion Power requirements

    f. Comply with all applicable rules and regulations

    g. Follow all written procedures for all situations

    Medium and Large contract will be required to provide a Safe Work Plan (SWP) for work activities they are engaged in while on site. The SWP must approve by Centurion Power project manager prior to work starting on site.

    All contractor personnel arriving at the work site for the first time must receive a site-specific safety orientation delivered by the customer for whom they will provide services. This orientation must contain information related to emergency evacuation and response procedures.

    Each contractor is responsible for the safety of all its workers and for ensuring that their personnel perform their day-to-day work in a safe manner. Contractor personnel must be familiar with and abide by:

    a. Centurion Power safety practices as contained in this handbook

    b. Safety regulations posted in the workplace

    c. Written and verbal instructions to perform their job safely as outlined in Safe Work Plan(SWP), Job Safety Analyses (JSA), Task Hazard Analysis (THA) and operating procedures

    d. All applicable Federal, State and local laws and regulations

    e. Emergency response procedures for this work site

    Every contractor shall:

    a. Conduct its operations in a manner that presents no hazard to the workforce, property or the environment

    b. Designate a safety representative for each work location to be responsible for all safety-related activities and to periodically visit the location

    c. Bring any observed, unsafe or hazardous conditions to the attention on the Centurion Power representative

d. Exercise all care necessary to protect and preserve the environment and wildlife at any location where work is performed and comply with all applicable Federal, State and local laws and regulations

e. Have, and abide by, written programs and procedures, as required or needed, including but not limited to:

- A motor vehicle safety program
- A federally compliant drug and alcohol testing program
- Personal Protective Equipment (PPE) use at all times while at the work site

2. **Incident Reporting:** A contractor must immediately report any incident that occurs at an Centurion Power work site, including near-miss events, to the Centurion Power representative, no matter how small. Contractors shall report all incidents (injury/illness, environmental release, vehicle crashes, property/equipment damage, and near misses) including first aid and repetitive stress injuries regardless of severity or impact.

   The initial incident report may be verbal and follow-up with a written incident report. Absent extenuating circumstances, the initial report shall be made within two (2) hours of the occurrence. Failure to report an incident within the two (2) hour time period may result in disciplinary action against the contractor.

   Incidents will be investigated to determine their root cause. Contractor personnel may be required to participate in or conduct root cause analysis (RCA). Data collection and the investigation will begin as soon as practical.

   Contractors should instruct workers to recognize the signs of contamination:

   a. Odors

   b. Soil discoloration

   c. Dead vegetation, applicable to the services they provide

   The contractor is responsible for the cleanup of any environmental release relating to its activities; however, Centurion Power requirements for levels of contamination following cleanup must be met if the spill was on an Centurion Power site. Spills of any size must be reported and cleaned up immediately and both the spill and the clean-up must be documented.

3. **Stop Work:** Without fear of reprimand, reprisal, or disciplinary action, every contract employee working at any Centurion Power job site or facility has the unquestionable right and responsibility to refuse to do any work and/or stop any job in which the employee thinks that all hazards of the job haven't been properly identified and addressed prior to the start of the job; or if a hazardous situation develops during the course of the job; or if the employee feels that he/she doesn't fully understand the job instructions or safety guidelines.

   This authority also extends to stopping any personnel they think may be in jeopardy due to developing circumstances, or whom they observe using improper or dangerous tools or work procedures. Centurion Power will instill and promote a safety culture where every employee and contractor knows and understands their rights and obligations under the Stop Work Authority policy. No job will be started, or resumed after stoppage for safety concerns, until all safety issues and concerns have been addressed and corrected and every person on the job site fully understands their individual and joint responsibilities for the safe completion of the project. The following sequence shall be followed when a stop work intervention is initiated:

   a. Stop - announce to all affected persons your intent to delay or stop the job

   b. Notify - notify the Centurion Power representative, job supervisor or facility manger

c. Correct - recommend and assist with corrective measures

d. Document -job supervisor will ensure that all stop work interventions are properly documented listing reason for stoppage and all corrective measures implemented.

e. Follow-Up Safety Meeting - it is important to ensure that the safety concerns have been addressed and corrected to the satisfaction of all concerned before work is resumed.

f. Resume - start or resume the job

g. All stop work reports shall be forwarded to the Centurion Power representative, local office and reviewed by management so that corrective actions can be implemented prior to the start of future jobs, thereby eliminating the need for additional work stoppages.

4. **Reports:** All contractors will be required to submit reports on a weekly, Monthly and project completion basis. The reports needing submittal will be assigned and determined by the Centurion Power contact and communicated to all contractors.

5. **Training:** Contractors are required to ensure their employees are trained and understand to follow proper work methods and to meet regulatory requirements and Centurion Power procedures.

6. **Housekeeping:** Good housekeeping is an indication of the focus on safety. As a practice:

   a. Keep tools, equipment, facilities and the work area clean and orderly

   b. Keep and consume food or beverages only in designated areas

   c. Dispose of waste in compliance with Federal, State and local regulations

   d. Keep access clear and free of obstructions. Work areas, walkways and stairways shall be kept free of slipping and tripping hazards

   e. Clean up spills immediately. Use barricades to isolate the area if immediate clean-up is not possible.

7. **First Aid and CPR Requirements:** Medium and large contractors must have certified first aid resources available at all Centurion Power jobsites during all aspects of the work. Contractor employees trained and certified in first aid and CPR have the possibility of occupational exposure to potential infectious materials; therefore should also be trained in blood borne pathogens.

8. **Smoking:** Smoking is permitted in designated smoking areas only

9. **Alcohol, Drugs, Firearms and Weapons:** The use of illegal drugs and alcoholic beverages, and the misuse of prescription and over-the-counter medications on Centurion Power sites are prohibited. Medium and large contractors shall develop, implement, maintain and enforce an alcohol, drug, and substance abuse screening policy consistent with this prohibition and applicable Federal, State, and local laws. Medium and Large contractors working on an Centurion Power site that are directly involved with construction, pipeline, survey or environmental activities must be enrolled in a random drug and alcohol testing program.

   Contract workers at Centurion Power sites shall notify their supervisors when they are taking medication (prescription or non-prescription) which may impair their judgment or work performance. Any prescription drug brought on the site must be in the container in which it was dispensed.

   No unauthorized alcoholic beverages, illegal drugs or other controlled substances are allowed on company property. Any use of alcoholic beverages, illegal drugs or other controlled

substances that cause or contribute to unacceptable job performance or unusual behavior is prohibited.

If a worker is affected by alcohol or drugs, they are not permitted to remain on any Centurion Power site. The contractor must have and enforce appropriate policies and procedures for its employees to ensure that such expectations are met.

All contractors are required to have a drug and alcohol testing program that includes the following types of testing:

a. Pre-employment
b. Random testing of employees working in safety-sensitive functions
c. Reasonable suspicion
d. Post-incident testing
e. Testing as part of a follow-up to substance abuse counseling or rehabilitation

Firearms and other weapons are not permitted at any Centurion Power sites. Pocket knives are acceptable in the workplace. Fixed blade knives are not acceptable under the weapons prohibition.

10. **DOT Drug Testing Requirements:** All positions involving operations, maintenance or emergency response functions required by DOT regulations are deemed by the DOT as safety-sensitive.

    All personnel working in safety-sensitive functions are subject to Section 199 of the DOT drug testing regulations which includes random drug testing, and are required to maintain a blood alcohol concentration of 0.00% at all times while on duty.

    Random and for-suspicion drug testing may be requested in accordance with DOT regulations, contractor's policy or Centurion Power policy.

11. **Security:** All contractor vehicles and equipment located on Centurion Power property or leases are subject to unannounced searches and seizures for illegal drugs, alcoholic beverages and/or firearms.

    Security measures have been implemented at every work location. All contract workers must follow the site specific measures.

II. HAZARD IDENTIFICATION

1. All contractors must be aware of occupational health hazards associated with services being provided at the site (i.e. chemicals, heat, and etc.). The contractor should evaluate the risks, controls, and perform monitoring, if deemed appropriate or if required by regulation. These hazards should be conveyed to affected personnel during the pre-job safety meeting with the contractor.

III. PERSONAL PROTECTIVE EQUIPMENT

1. **Personal protective equipment (PPE)** is an essential element in protecting the workforce from workplace hazards and on-the-job injuries. Contract workers shall comply with all posted signs and OSHA requirements regarding PPE.

   Contractors must assess the hazards present at each job site based on the task performed and ensure its employees wear the appropriate PPE to protect themselves.

Contractors must ensure all PPE supplied and required for performance of the work is in good condition and is maintained in accordance with manufacturer's specifications. It is the responsibility of the contractor to ensure their employees are adequately trained in the proper uses, limitations, and maintenance of the PPE utilized.

2. All members of the workforce working in a construction zone or a safety sensitive areas must use the following PPE when working in areas other than offices and parking areas:
    a. Hard hats
    b. Safety footwear
    c. Safety glasses with side shields
    d. High visible vest or clothing
3. **Fire-resistant clothing:** FRC meeting the appropriate NFPA standards for the work being performed must be worn at all times when on Centurion Power sites where hydrocarbons are present or an arc flash danger is present, including; but not limited to:
    a. At any location where the possibility of a natural gas or other flammable vapor release creating the potential for a flash fire exists
    b. On any location or facility where a PPE hazard assessment has determined that FRC is a requirement
    c. During well servicing, gas compression, pipeline, and production related operations
    d. When any electrical work is being performed where FRC is required under the NFPA 70E Standard (i.e. arc flash hazards);

    FRC must cover the entire body from neck to ankle, including long sleeves and must be worn as the outermost garment. Contractors must provide and maintain FR garments according to the National Fire Protection Association 2112 standard and or NFPA 70E. This clothing must also meet the requirements for the Hazard Risk Category for the workers specific function.

    It is recommended that undergarments worn with FRC are made from fabric that does not melt (no polyester or synthetic fabrics which may melt against the skin).
4. **Head:** Hard hats are required at all work locations and along the right-of-way, except in offices or when riding in an enclosed vehicle. Maintain hard hats in good condition. Hard hats must be nonmetallic (nonconductive or dielectric) and meet the Z89.1 Class A and B requirements of American National Standards Institute (ANSI).
5. **Eyes and Face:** All safety glasses and face shields used at Centurion Power locations must meet ANSI Z87.1 standards.

    When debris of splash hazards is possible or present, wear face shields as an additional layer of protection with either safety glasses with side shields or goggles.
    a. Wear safety glasses with side shields to protect against eye hazards caused by particulates
    b. Wear splash-proof chemical goggles when handling potentially hazardous chemicals or liquids that may splash or spray, or other operation where your eyes may be exposed to potentially hazardous chemicals.

    Certain electrical tasks also may require use of a face shield or arc-rated hood.
6. **Hearing:** Contractor shall require its employees to wear approved hearing protection if there is a risk of exposure to noise greater than 85 decibels.

7. **Respiration Protection:** Respiratory protection should be used only by personnel trained in its use, care and limitations. Contractor is responsible for ensuring that its workers have been trained, medically qualified and fit tested as required by OSHA. Contractor must enforce a 'no facial hair' policy for workers who may be required to wear respiratory protection equipment. If their workers use respiratory protection, the contractor should have a written respiratory protection plan.
8. **Hand:** Hand injuries are the most common injury at work sites. Contractors will provide, and the workers will use, appropriate hand protection when performing tasks that expose fingers and hands to objects, materials or situations that could cause cuts, scrapes, bruises or burns (including chemical burns).
9. **Foot:** All workers on Centurion Power sites (with the exception of office facilities) must wear appropriate footwear with the following features:
    a. Protective internal toe cap
    b. Impact-resistant toe cap
    c. Compression-resistant toe area
    d. Ankle coverage
    e. Notched heel that prevents slippage when climbing ladders
    f. Oil-resistant soles

IV. SAFE WORK PRACTICES

1. **JSA and Tailgate Safety Meetings:** At each Centurion Power site, medium and large contractors will appoint a competent worker to be responsible for Health & Safety coordination of the contractor's anticipated tasks. Medium and large contractors should appoint this worker based on the worker's experience and knowledge in both field operations and EHS matters. In order to ensure all affected individuals are made aware of jobsite hazards and how to eliminate and/or control them, Centurion Power expects contractors to perform pre-job JSA/Tailgate safety meeting prior to performing task, which meet the criteria listed below.

    A JSA/Tailgate Safety Meeting Form should be completed by the contractor and an Centurion Power representative and reviewed with all affected personnel prior to starting work, which may expose three or more individuals to potential hazards on a job site.

    The JSA/Tailgate Safety Meeting should identify the following at a minimum:

    a. Identify any potential hazards related to performance of the work
    b. Eliminate or implement controls to address each potential hazard
    c. Identify proper Personal Protective Equipment (PPE} required for the task
    d. Review the JSA/Tailgate Safety Meeting Form with all affected employees onsite and have individuals sign the meeting form

    On sites where multiple contractors will be conducting concurrent operations, Centurion Power expects each contractor to be familiar with the work to be performed by the other contractors on or around the job site. Centurion Power expects the contractor directing and controlling the jobsite to ensure that no person(s) enter a hazardous area unless they are wearing the required PPE, reviewed the JSA/Tailgate Safety Meeting Form, and signed off in acknowledgement. Contractors providing services, which require multiple days in order to complete a job, should complete a new JSA/Tailgate Safety Meeting Form at the beginning of each shift change or day to cover the specific task and associated hazards with each phase of the job.

Jobs requiring contractors to utilize special permits such as those needed for Hot Work and/or Confined Space Entry should supersede the use of a JSA/ Tailgate Safety Meeting Form. Each of the specialized permits mentioned contain their own specific criteria for addressing the specific hazards associated with those tasks.

Once the job has been concluded, the signed JSA/Tailgate Safety Meeting Form should be submitted to the Centurion Power representative, which requested the work order and filed with the job's associated paperwork.

Safe Work Permits

2. **Confined Space Entry (Non-permit and Permit required):** Medium and large contractor employees must be trained and certified prior to performing any type of confined space entry work at our sites. Contractors are encouraged to consider optional methods to complete work so as to eliminate the need for permit required confined space entry (i.e. declassification through elimination of potential hazards). Approval by an Centurion Power representative must be obtained prior to performing any non-permit and permit required confined space entry work. Contractor should utilize their company Confined Space Entry Permit in order to complete the required task.

   Contractor Entry Team Training should consist of the following:

   a. Atmospheric Air Monitoring (i.e. Four Gas Detector- CO, 02, % LEL, H2S)
   b. Respiratory Protection (Permit Required Confined Space Entry Only)
   c. Confined Space Entry
   d. First-Aid and CPR
   e. Emergency Rescue (Permit Required Confined Space Entry Only)
   f. Site Specific Training

3. **Hot Work:** Only qualified workers may work in hot work areas.

   Contractors are required to utilize a Hot Work Permit process prior to conducting cutting, welding, grinding, or other similar spark/flame producing processes within areas which contain or may produce a potentially hazardous (flammable/combustible) environment.

   The following examples are areas where Centurion Power requires contractors to utilize a permit prior to performing hot work. The list of examples below is not intended to be exhaustive, as hot work permits are not limited to the following areas:

   a. Within 50 ft. of operating production equipment or facilities
   b. Within 50 ft. of well servicing, drilling, or workover operations being conducted on a well location
   c. During pipeline tie-in or replacement when flammable/combustible gases or vapors may be present

   A permit remains in effect only for the duration of the work shift in which it is issued. Medium and large contractors shall utilize their company specific Hot Work/Safe Work process. Prior approval must be obtained from a Centurion Power representative before permit required hot work commences on Centurion Power sites.

   Prior to starting work on jobs requiring ignition sources in hot work areas, the contractor must designate a 'Fire Watch'. The Fire Watch is to monitor for conditions that may cause a fire such as sparks or levels of flammable/combustible gases during permit required Hot Work operations {i.e. % LEL monitor), act as stand-by with fire extinguisher (Minimum 20lbs. ABC Type) during Hot Work operations, and conduct the final Hot Work sign-off inspection. The fire watch must

thoroughly inspect all areas where sparks may have flown or traveled to need to be checked thoroughly to make sure that no fire hazard has been created or thoroughly wash down, if practical and observe the hot work area for a minimum of 30 minutes after hot work ceases to be certain no fire hazard is present.

Hot Work in confined spaces will only be permitted when the space can be suitably purged and ventilated to eliminate the possibility of a hazardous atmosphere developing at any time it is occupied. PERMIT-REQUIRED CONFINED SPACE ENTRY PROCEDURES WILL APPLY (Refer to Confined Space Entry Section).

4. **Excavation:** Any ground disturbance or excavation deeper than 15 inches must be conducted in accordance with all applicable OSHA standards. The use of an excavation or ground disturbance permit will be required. Contractor must request professional location of underground lines through the applicable state program (i.e. One Call, 811, or etc.) prior to any ground disturbance or excavation. Work should not commence until all underground lines have been identified and staked by an Authorized Utility representative, or other underground locating services.

   Medium and large contractor should ensure its workers have the appropriate level of training in ground disturbance activities prior to performing excavation work on Centurion Power. At a minimum, one person who has a current Competent Person Certification for Excavation should remain in attendance during excavation activities.

   If any existing pipeline, or other utility line, is contacted, hit or ruptured during ground disturbance activities, the owner of the underground facility should be notified immediately.

5. **Trenching and Shoring:** Contractors must follow safe work practices for trenching and excavating activities. All excavations or trenches where persons may be working should be properly sloped or shored.

Hazardous Energy

6. **Electrical Safety:** Only workers who have received appropriate electrical training are permitted to work on electrical equipment or systems for Centurion Power. Additional training and procedures must be provided to Centurion Power prior to performing work on High voltage equipment or work in live sub stations.

   All portable electrical equipment used at Centurion Power sites must conform to the National Electrical Code and all applicable OSHA and other related regulations. Installation of electrical systems or modifications to electrical systems (i.e. wiring) should be done under the supervision of a licensed electrician.

   The contractor should:

   a. Determine if the work area will require equipment rated for hazardous atmospheres
   b. Ensure that workers near overhead lines know the voltage of the line and the safe approach distance
   c. Abide by the current Electrical Code Regulations for the jurisdiction in which work is being performed. The contractor must be aware of, and to
   d. Take precautions to prevent buildup of static electricity, which can cause sparks (i.e. bonding & grounding),
   e. Address the presence of cathodic protection systems with the Centurion Power representative when working with tanks or piping, if applicable.

7. **Lighting:** Use explosive-proof portable lights and flashlights which are approved for the specific work location.

8. **Extension Cords:** Extension cords are for temporary use only. If practical, arrange electrical devices to avoid the use of extension cords.

   Before using an extension cord, cover it with approved guards or tape to prevent tripping hazards.

   Use only extension cords which are:

   a. Approved and rated for the application

   b. Three-wire, grounded type

   c. Equipped with three-wire, grounded receptacles and plugs. Plugs must be explosion proof when working in hazardous locations.

   Do not use extension cords which are damaged or spliced. Remove damaged cords from service.

   Do not fasten an extension cord with staples or otherwise hang it in a way which could damage the outer jacket or insulation.

9. **Power Tools:** Use only portable electrical tools and equipment which are UL-listed, double-insulated tools or grounded through a third wire in their cords.

   Do not use electrical tools or equipment with damaged or inadequate insulation, defective cords, etc.

   Where explosion or fire is possible, use pneumatic (air-operated) power tools.

   If one or more electrical tools are to be used, ensure that the power sources have ground fault circuit interrupter (GFCI) protection in place

10. **Bonding/Grounding:** Exposed noncurrent-carrying metal parts of fixed electrical equipment, including motors, generators, frames, and tracks of electrically operated cranes, electrically driven machinery, etc., will be grounded.

    Portable equipment will be grounded by means of a ground rod (less than 5 OHMS resistance) or by bonding to the nearest grounded structure.

    Conductors used for bonding and grounding stationary and movable equipment will be of ample size to carry the anticipated current.

    When attaching bonding and grounding clamps or clips, a secure and positive metal-to-metal contact will be made. Such attachments will be made before closures are opened and material movements are started, and will not be broken until after material movements are stopped and closures are made.

11. **Lock-out/Tag-out:** Whenever machinery or equipment is shut down for servicing or repairs, the equipment will be locked out and tagged by trained authorized employees in accordance with OSHA's Control of Hazardous Energy standard. A site-specific lock-out/tag-out procedure will be determined by the contractor during an initial hazard assessment and conveyed to affected personnel during the pre-job safety meeting. Contract workers should only work under their own lock/tag and should always verify the machinery or equipment is in fact de-energized prior to commencing work. Once the work is complete the contractor performing the lock-out/tag-out is responsible for notifying affected personnel before removing their isolation devices and re-energizing the machinery or equipment.

12. **Depressurizing Production Equipment:** Contractors must obtain permission from an Centurion Power representative prior to depressurizing Centurion Power production related equipment (i.e. wells, pipelines, vessels, compressors, or other associated equipment) in order to determine if any site-specific procedures are in place and to identify any potential hazards. Hazards may

include exposure to petroleum hydrocarbon liquids and gases, release of liquids and gases (toxic and/or flammable) to the environment, and fire.

Working and Walking Surfaces

13. **Elevated Working Surfaces:** All contractors will be required to train their employees on working at heights and provide documentation of training to Centurion Power contact person. All work areas, walkways, and platforms elevated more than four (4) feet, whether permanent or temporary, must be safe, sturdy and enclosed by an approved guardrail (proper height, upper and intermediate rail).

    Where there is a hazard to the personnel working below the elevated work area, toe boards must be in place. All floor openings must have a securely installed covering or proper guard rail.

    Scaffolds or elevated platforms must be constructed, maintained, and used in accordance Federal regulations.

    When working overhead, the contractor should have a competent spotter and the area roped off or other equivalent measures taken to protect workers on the site. Signs reading "Danger - Overhead Work" or "Hard Hat Area" should be conspicuously posted.

14. **Fall Protection:** All workers working at heights of four (4) feet or greater must use a fall protection systems. All workers must receive training prior to using fall arrest systems.

    Full safety harnesses and lifelines, or other acceptable fall arrest systems, should be supplied by the contractor and worn by all workers when working at heights where falling hazards are present and workers are not protected by guard rails as required by 29 CFR 1910 Subpart D. All workers should be properly trained in the use and maintenance of fall protection devices. Where man baskets are required, the contractor should ensure that a professional engineer has certified this equipment. Workers in man baskets should be secured in accordance with OSHA 29 CFR1910 Subpart F.

15. **Scaffolding and use:** Contractors who are required to use scaffolding to complete any work activities must comply with OSHA's Scaffolding requirements found in 29 CFR 1926.451**.** All scaffolding types must be preapproved by Centurion Power contact prior to being used on the jobsite. Scaffolding will be made up of industrial grade scaffolding system. Each employee must be trained in the safe use of scaffolding prior to working with or on any scaffolding erected for work activities.

Surveying near Traffic

16. **Required 'Free Space':** Maintain at least six (6) feet of space between moving traffic and your work area. This includes work on shoulders as well as on the traveled way. Survey at the maximum space possible between moving traffic and your work area.

17. **Face Traffic:** Whenever feasible, each employee must face moving traffic at all times. If it is not possible to face traffic, a lookout should be used.

18. **Move Deliberately:** Do not make sudden movements that might confuse a motorist and cause an accident.

19. **Signal Cautiously:** Whenever feasible, use radio communication. Carefully and deliberately use surveying hand signals so they will not startle or confuse motorists or be mistaken for a flagger's direction.

20. **Avoid Interrupting Traffic Flow:** Minimize crossing traffic lanes and never attempt to run across traffic lanes.

21. **Physical Barriers:** Whenever feasible, place a barrier vehicle or a shadow vehicle between moving traffic and workers.

22. **Distractions to Motorists:** Minimize working near moving traffic, especially on high-speed roads, when the motorists' attention may be distracted by other ongoing activities, such as vehicular accidents, maintenance activities, and construction operations; or distracting objects on or along the highway. Do not work along streets or highways within 2000 feet of such activities or objects.

Hazardous Materials

23. **Hazard Communication:** All workers who work with chemicals or other hazardous materials must be trained in HazCom procedures and protections. Contractor will develop, implement, and follow a program which minimizes the risk of spill, illness, or injury regarding their employee's usage of hazardous chemicals on Centurion Power worksites. Contractors should ensure their workers are aware of the program, the location and interpretation of the SDS, and the location and use of the required PPE.

24. **Labeling and SDS Requirements:** Any container holding chemicals must be properly labeled with the name of the substance and any hazards associated with it or its use. Labels must meet all regulatory requirements.

    Centurion Power maintains an inventory of all chemicals used at each facility. Also, maintained on site is the SDS for all chemicals present at the work site.

Material Handling

25. **Mechanized Lifting Equipment:** Only competent, trained, and qualified workers will operate lifting equipment (i.e. forklifts, man lifts, work platforms, or etc.). Workers must carry their certification cards when operating this equipment.

    Prior to performing lifts with cranes, hoist, derricks, or other lifting equipment, the equipment operator should determine the weight of the object to be lifted and ensure that cables, lifting equipment, slings, wire ropes, chains, and hooks are of sufficient strength and in proper condition to support the weight of the load. For critical lifts with a crane, derrick, or hoist, written lifting procedures complete with load charts should be prepared and reviewed by the contractor/lifting equipment operators should conduct a visual inspection of equipment prior to commencement of work to determine if the equipment is capable of performing the work and that the equipment will not be operated beyond its design capabilities.

    Tag lines should be used whenever loads require guiding or stabilizing. No worker should allow any part of his or her body to extend under any load being lifted by a crane, side boom, or other lifting equipment.

26. **Fork Lifts:** Only authorized and trained personnel will operate fork trucks. Contractors are responsible for the safe operation of the equipment. All fork truck operators must be trained and have a performance evaluation every three (3) years. All operators are required to carry certification cards.

    Requirements for fork lift operation on Centurion Power sites are as follows:

    a. All fork trucks will be equipped with an overhead carriage, fire extinguisher, rotating beacon, face plate, horn, and back-up alarm

    b. The operator will perform daily pre-inspections

    c. The operator will wear a seatbelt

d. Any safety defects (such as hydraulic fluid leaks, defective brakes, defective steering, missing face plate, non-working horn, missing fire extinguisher, etc.) will be reported for immediate repair or have the fork truck taken out of service

e. Operators will follow the proper recharging or refueling safety procedures

f. Loads will be tilted back and carried no more than 6 inches from the ground. Loads that restrict the operator's vision will be transported backwards.

g. Operator will sound horn and use extreme caution when meeting pedestrians, making turns and cornering.

h. Passengers may not ride on any portion of a fork truck. Only the operator will ride the fork truck.

i. Lift capacity will be marked on all fork trucks. The Operator will ensure load does not exceed rated limits.

When unattended, fork trucks will be turned off, forks lowered to the ground, parking brake applied and key removed.

27. **Rigging:** For the purposes of this section, 'rigging' means any combination of rope, wire rope, chain, sling, sheave, hook and associated fittings used in a hoisting operation. Contractors will ensure that only trained and certified riggers will be allowed to rig equipment for lifting purposes.

    Standard wire rope, alloy steel chain, metal mesh, synthetic fiber rope and synthetic fiber web slings should meet the requirements of ASME 830.9-1990.

    Slings should be of sufficient strength to withstand the imposed loads, with minimum safety factors as required by regulation. Slings should be tagged with inspection dates, and loads should be clearly marked.

28. **Equipment and Power Tools:** All equipment and tools necessary to complete the work should be in good condition and operated as per manufacturer's operating guidelines. Medium and large contractor will supply equipment and tools necessary to complete the work; unless other specific arrangements are made with an Centurion Power representative. Guards must be properly installed and maintained on all power tools and equipment.

Fire Prevention

29. Medium and large contractors are to supply fire suppression and protection equipment appropriate to the work being performed. ABC type extinguishers are recommended for all Centurion Power sites. Fire extinguishers should be properly inspected, tagged and sealed, and contractor personnel shall be trained in their use.

    Centurion Power expects the contractor to provide appropriately sized fire extinguishers. Such extinguishers should be based upon vehicle size and potential fire hazard associated with the work.

30. **Smoking:** Smoking is prohibited around the Pipeline right ways and other associated equipment. Smoking is only allowed within designated areas on the worksite. It is the responsibility of the contractor to establish and enforce a designated smoking area a safe distance away (5O feet or more).

31. **Open Flames:** The presence of any open flame is prohibited around well bore, production equipment, compressor station, or any other associated facility. Welding and/or cutting operations within this restricted area may be performed once a Hot Work Permit is issued, and the necessary controls have been instituted to properly address potential hazards onsite.

32. **Cellular Phone and Handheld Radio Usage:** Cellular telephones and handheld radios will be used only when it is safe, prudent, and necessary to do so. Medium and large contractors are expected to assess the risk of accepting or sending transmissions from a cellular phone or handheld radio, including but not limited to, distraction while driving, be at least 50 feet away from an ignition source during perforating operations, and ignition source in the presence of flammable/combustible liquids or vapors.

33. **Fitness for Work:** Medium and large contractor must ensure that its workers are able to perform their job functions safely. Contractor must have appropriate policies and procedures to ensure that such expectation is met, including, for example, fitness for duty and other employment policies consistent with applicable Federal, State and local law (e.g., if applicable, the Americans with Disabilities Act, etc.). Contractor must ensure that its employees do not pose a direct threat to the health and safety of themselves or others while on any Centurion Power site.

Biological Hazards and Controls

34. **Snakes:** Snakes are typically found in underbrush and tall grassy areas. Most snake bites occur below the knee, on the hand or on the forearm. It is recommended that employees use gauntlet gloves, high-top leather boots, and extra care when walking through underbrush or tall grass. If you are bitten by a snake:

    a. Stay calm. Notify co-workers to help you seek medical attention. Seek medical attention from the nearest medical facility.

    b. Immobilize the affected limb, keeping the bitten part below the level of the heart. Even if the snake is not venomous, excellent wound care is required. A tetanus booster shot is needed if the employee has not had one within the last 5 years.

    c. Do not cut the bite open and suck out the venom. Do not apply ice, cold packs, or Freon spray.

    d. As with all puncture wounds, snakebites carry a high risk of infection, whether or not venom is injected. Clean the wound carefully with soap and water.

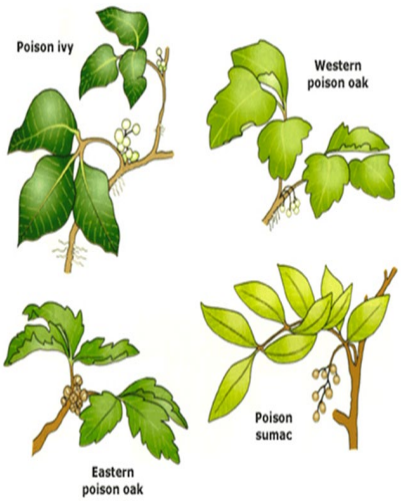
35. **Ticks & Mosquitoes:** Ticks are typically found in wooded areas, bushes, tall grass, and brush. Ticks are black, black and red, or brown and can be up to one-quarter inch in size. Mosquitoes are found near areas of standing water. Wear long-sleeved shirts tucked into long pants, and hats to cover exposed skin. Tuck pant legs into socks. Use insect repellant on exposed skin to repel ticks, mosquitoes and other insects. DEET concentrations of 30% to 50% are effective for several hours. Picaridin needs more frequent application. Wash insect repellant off at the end of the day and check thoroughly for ticks.

36. **Bees and Other Stinging Insects:** Bees, wasps, and other stinging insects may be encountered almost anywhere and may present a serious hazard, particularly to people who are allergic. Carry a kit if you have had allergic reaction in the past, and inform your crew leader (typically Party Chief and/or Survey Coordinator). Watch for and avoid nests while working. If stung and the stinger is present, remove it carefully with tweezers. Wash and disinfect the wound, cover it and apply ice. Watch for an allergic reaction and seek medical attention if a reaction develops.

37. **Animals:** Remain alert for wild and domestic animals. If entering a fenced area with animals have an escape path. Do not go between a young animal and its parent. Do not pet or approach animals. Do not feed animals. Remain calm and back away facing the animal.

38. **Poisonous Plants:** Poison ivy, poison oak, and poison sumac are typically found in brush or wooded areas. Become familiar with the identity of these plants and avoid contact. If skin contacts a plant, wash the area with soap and water as soon as possible. Ivy block and ivy dry

may reduce the reaction. If the reaction is severe or worsens, seek medical attention. (See images below)



Occupational Health Hazards

39. **Hydrogen Sulfide:** Where Hydrogen Sulfide Gas (H_2S) may be present, contractor personnel will be trained to understand the properties, toxicity, and precautionary measures to be taken when working in an H_2S gas environment. At a minimum, contractors are expected to monitor for the presence of H_2S gas on designated locations as well as take any additional safeguards which may be necessary based on the anticipated exposure concentrations (i.e. ventilation, respiratory protection, windsock, etc.). Contractors are responsible for ensuring compliance with any

applicable state and/or Federal regulations related to addressing hazards associated with working in H_2S gas environments.

40. **Condensate:** Only competent, trained, and qualified contractors shall work with or around natural gas condensate. Contractors must understand the need for procedures, training, enforcement be able to protect workers from the hazards. Proper PPE must also be utilized.

41. **Lead Containing Material:** Lead is a toxic heavy metal that can be hazardous when exposed and can be found in a variety of materials such as paints, solder, radiological shielding, and batteries. Working with lead requires precautions and training along with special equipment to prevent airborne exposure. Only licensed professionals will abate lead containing material.

    Treat all materials, if suspected of containing lead, as lead until determined to be lead free. See your supervisor for further direction.

42. **Asbestosis Containing Material (ACM):** ACM is the generic term for a group of naturally occurring, fibrous minerals with high tensile strength, flexibility, and resistance to heat, chemicals, and electricity.

    In the construction industry, asbestos is found in installed products such as sprayed-on fireproofing, pipe insulation, floor tiles, cement pipe and sheet, roofing felts and shingles, ceiling tiles, fire-resistant drywall, drywall joint compounds, and acoustical products. Because very few asbestos containing products are being installed today, most worker exposures occur during the removal of asbestos and the renovation and maintenance of buildings and structures containing asbestos.

    Only trained and authorized contractors are permitted to handle asbestosis. A full abatement plan is require to be reviewed by all affected employees and contractors working in and around ACM before asbestosis abatement activities begin.

43. **Pump Jacks:** Only competent, trained, and qualified contractors shall work with or around pump jacks. Contractors must understand the need for procedures, training, enforcement be able to protect workers from the hazards. Proper PPE, LOTO practices, fencing, guarding, ladder safety and fall protection issues must be addressed prior to activities around these devices.

Vegetation Management

44. Medium and large contractors must meet state and Federal regulatory requirements regarding soil re-vegetation practices. Contractors should obtain permission from an Centurion Power representative prior to utilizing herbicides on Centurion Power sites. All herbicide contractors should be trained and/or certified according to state and federal regulatory requirements prior to application on Centurion Power sites.

Vehicles

45. All motor vehicles utilized on Centurion Power job sites, including, but not limited to, trucks, all-terrain vehicles (ATV's) and excavation equipment, must be operated and maintained in a safe and responsible manner, and in compliance with the manufacturer's instructions and other applicable regulations such as DOT and FMCSA. When required by law, vehicles will be equipped with back-up alarms and rollover protection. Seatbelts must be worn at all times when available.

    Medium and large contractor will provide suitable training and certification, where required, to demonstrate the competency of its workers in operating various types of motor vehicles associated with services being provided to Centurion Power.

    Equipment with reduced visibility to the rear (i.e. dump trucks, vacuum trucks, excavation equipment or etc.) should be equipped with back-up alarms or utilize a spotter while backing. In

congested work areas, a spotter should be used while backing vehicles. Workers should not approach motorized vehicles until eye contact has been established with the operator.

Contractors pulling trailers should ensure their trailer has appropriate brakes, brake lights, warning lights, and a hitch with a safety chain.

Waste Management

46. Proper disposal of wastes generated by the Contractor (i.e. waste oil from equipment) is the responsibility of the Contractor. Storage and handling of wastes should be safe, environmentally responsible, and comply with all applicable regulations, with records detailing wastes generated, stored and disposed.

47. **Compressed Gas Cylinders:** All compressed gas cylinders must be labeled, handled, stored, transported, and inspected in compliance with applicable regulations and industry standards.

    All compressed gas cylinders should be returned promptly to the storage area after use. Protective caps should be placed over the cylinder valves when not in use or when the cylinders are being transported by any means. Compressed gas cylinders should be stored in the upright position and secured to a stationary object or structure.

    Compressed gas cylinders should be kept away from heat, including direct sunlight, fire, or electrical lines. Cranes may not transport compressed gas cylinders unless a special carrier is used.

    Acetylene or liquid gas cylinders should never be operated in a horizontal position, as the liquid may be forced out through the hose causing a fire hazard or explosion.

Environmental

48. **Water Diversion:** Contractors are responsible for obtaining from the appropriate Centurion Power employee all necessary approvals, licenses, and/or permits needed to divert water (i.e. use of surface water for drilling, use of groundwater wells) prior to performing the work. The contractor shall post the copy of the permit or approval at the work site while they are conducting the water diversion.

49. **Wildlife Awareness:** Contractors working in wildlife areas will provide their employees with basic information and training on the specific operating procedures and risks associated with work performed in a wildlife area.

50. **Soil Conservation:** All excavation, earth-moving, soil stripping, brush clearing, and other earth-work will be conducted in a manner that preserves the soil and allows for the segregation of soil types in order to facilitate land reclamation in the future. Segregation of soil types should be conducted in accordance with applicable state and Federal regulations. Contractors must use industry best practice to prevent excessive soil erosion due wind or storm water (i.e. diversion ditches, compost filter socks, rock check dams, & etc.) according to state and federal regulations. Contractors are responsible for coordinating any permit requirements with Centurion Power staff prior to the initiation of work and shall meet any and all permit requirements as outlined by Centurion Power

Regulatory & Worksite Inspections

51. All Contractors must immediately notify a Centurion Power representative if approached or contacted by any regulatory inspector while performing services for Centurion Power.

52. Onsite supervisors must perform regular worksite inspections of operations, and to participate in joint inspections with an Centurion Power representative when requested.

V. EMERGENCY PROCEDURES

1. **Emergency Response:** All members of the workforce are responsible for understanding work site emergency procedures and following directions given during an emergency, including the following:

    a. Be familiar with emergency procedures at the work location for fires, explosions, injuries or other emergencies

    b. Notify the Centurion Power representative as soon as possible

    c. Contractors should make no contact with the news media. Media inquiries should be directed to the Centurion Power representative.

    Medium and large contractors shall ensure all applicable emergency equipment (i.e. spill kits, fire extinguishers, first aid kits, & etc.) on the site are proper for the work to be performed, readily accessible, and in good working condition. All individuals working on the site should know the location and be trained in proper use of this equipment.

2. **Access/Egress:** All routes of access and egress from site facilities should be kept clear of obstructions at all times. Obstructions include vehicles, equipment, trash, power and phone lines, temporary living quarters, and other materials or equipment. All vehicles must be parked properly and only in designated areas to allow unfettered access/egress to the facility.

3. **Emergency Response Plans:** Medium and large contractors must develop, implement, and enforce their own emergency response plan appropriate for the type of services they perform. Access to such a plan must be made available to all working at the site. At a minimum the plan should contain the following:

    a. Ambulance telephone contacts

    b. Fire telephone contacts

    c. Police and/or sheriff telephone contacts

    d. Pertinent Centurion Power emergency contact names and phone numbers

    e. Contractor emergency contact names and phone numbers.

    Mandatory emergency drills should be periodically conducted.

    Fire extinguishing equipment must be conspicuously located and readily accessible. Unless otherwise trained and authorized, do not attempt to extinguish any fire other than incipient-stage fires.

    In addition, contractor employees shall be familiar with all Centurion Power emergency plans including, where applicable, the following:

    f. Centurion Power Emergency Response Plan for the site

    g. Preparedness, Prevention, and Contingency Plan for the site

    h. Waste Disposal Plan for the site

    i. Pressure Barrier Policy and Control Plan for the site

    j. Spill Prevention, Control, and Countermeasure Plan for the site

    The contractor shall know where these plans are located on site and be familiar with the response procedures detailed in these plans.

4. **Extreme Weather Conditions:** Whenever possible, work should not be performed during an electrical storm, high winds, heavy rains, or other weather extremes. Workers should be moved to a safe area until conditions allow for work to resume.

ACKNOWLEDGEMENT FORM - CONTRACTOR EXPECTATIONS

HANDBOOK FOR ENVIRONMENT HEALTH & SAFETY

Contractor Acknowledgement:

This acknowledgement form shall not alter or amend the terms of contractor's written contractual arrangement with Centurion Power, nor shall it alter the status of contractor as an independent contractor. Contractor acknowledges its obligation, as reflected in its written contractual agreements with Centurion Power, to take responsibility for compliance with all health, safety and environmental rules, regulations, ordinances, and other laws and for directing, overseeing, and controlling activities of its own employees and subcontractors on any Centurion Power site.

Contractor acknowledges that the expectations contained in the handbook are designed to mitigate, to the extent possible, the occurrence of accidents or other incidents at Centurion Power job sites. However, Centurion Power does not warrant or guarantee accidents or incidents will not occur. Contractor is solely responsible for ensuring that all employees and Subcontractors personnel comply with these expectations and that persons or property are protected from injury and damage as a result of contractor's operations on the site.

Contractor should immediately direct any questions, comments or concerns relating to the handbook or any other health and safety related matters, to Centurion Power Director of Safety.

I have read the entire Centurion Power Health & Safety Contractor Expectation Handbook. I have had the opportunity to ask questions and fully understand the meaning and intent of this Handbook. By signing below, I acknowledge having received this handbook and agree to abide by its contents.

Company: _____

Contractor Signature: _____

Contractor's Printed Name: _____

Date: _____

Please keep a copy of this acknowledgement form for your records and forward a signed copy to Centurion Power Safety Department.

Post Job Contractor Performance Evaluation			
Contractor:		Single Project/Annual Review:	
Job Reference:		Assessed by:	
Location:		Date of Evaluation:	

Safety Performance

Did the contractor have any work injuries during the period of the contract/last 12 months? **YES / NO**
If YES, give details.

Was the contractor involved in any safety, environmental or other incidents? **YES / NO**
If YES, give details.

Safety Management and Standards

Poor = 1 Satisfactory = 2 Good = 3 Very Good = 4 Excellent = 5

	1	2	3	4	5
Rate the contractors ability to prevent injuries & achieve a goal of zero injuries and incidents					
Rate the adequacy of the contractor's safety auditing and inspections					
Rate the contractor's safety performance					
How good was the housekeeping and orderliness?					
Rate the safety attitude and cooperation of the contractor's supervisors.					
Rate the safety attitude and cooperation of the contractor's employees e.g. wearing PPE, barricading					
Rate the quality of the contractor risk assessments					

Comments on overall safety performance:

Contract

Poor = 1 Satisfactory = 2 Good = 3 Very Good = 4 Excellent = 5	1	2	3	4	5
How well were requirements understood, incl. safety					
How responsive was the contractor to requests?					
How easy was communication (fax, email, etc.)?					
Comments:					

Work Performance

Poor = 1 Satisfactory = 2 Good = 3 Very Good = 4 Excellent = 5	1	2	3	4	5
Was all the work completed on time?					
How prompt & complete was the work documentation?					
Did the finished work meet the contract specifications?					
How well was the contract self-managed?					
Comments on contract award:					

Overall, would you like to use this contractor again? **YES / NO**

Recommend: a) Stay on Approved Contractors List ☐ or
b) Remove from Approved Contractors List ☐