



VRG Controls LLC

Health, Safety, and Environmental Manual

Rev. 12/18/2025



VRG Controls LLC Mission Statement

1. MISSION STATEMENT

The HSE Department at VRG Controls LLC develops and implements comprehensive environmental health and safety policies throughout the organization to support its mission and goals. Their focus is on protecting public health, preventing personal injury, and ensuring regulatory compliance in areas such as chemical, biological, and radiation safety, occupational health and safety, and environmental stewardship. HSE is committed to reducing injuries, accidents, and environmental impact through high-quality training, workplace evaluation, emergency response, hazardous materials management, and regulatory compliance.

1.1 Responsibilities

At VRG Controls LLC, safety is everyone's responsibility, and all employees participate in ensuring a safe work environment. New Employee Orientation covers all Company safety policies and procedures, and the Safety Coordinator and Safety Committee lead the overall safety effort by providing necessary resources for accident prevention. The Safety Committee regularly reviews and updates HSE procedures through a quarterly review process to maintain the integrity of the Company safety management system. Supervisors are responsible for maintaining safe work conditions, and employees are responsible for following established safety procedures, reporting potential hazards promptly, and promoting a proactive culture of safe and responsible facility use. Maintaining a safe work environment is a top priority for VRG Controls LLC and a personal goal for each employee.

Endorsed By: (Title)			
Signature:		Date:	

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VRG Controls LLC Code of Conduct and Ethics Policy

1. CODE OF CONDUCT AND ETHICS POLICY

1.2 Purpose and Scope

The purpose of this policy is to establish the standards of behavior and ethical principles expected of all employees, contractors, and stakeholders.

This program applies to all VRG Controls LLC employees.

1.3 Commitment

The Company is committed to maintaining transparent business operations.

Leadership is critical to effective organizational governance, and transparent business operations are necessary for long-term success. This is true not only for decision making but also for employee motivation to practice social responsibility and to integrate social responsibility into organizational culture. Our decision-making processes and structures enable us to demonstrate leadership commitment and accountability.

1.4 Compliance with Laws and Regulations

1.4.1 Legal Compliance

All individuals must comply with all applicable laws, regulations, and standards relevant to their roles and responsibilities within the Company.

1.4.2 Ethical Standards

Individuals must uphold the highest ethical standards and act with integrity, honesty, and fairness in all professional relationships and business dealings.

1.5 Conflict of Interest

1.5.1 Identification and Disclosure

Individuals must promptly identify and disclose any actual or potential conflicts of interest that may arise in their roles within the Company. Conflicts of interest can include personal, financial, or professional relationships that could compromise impartiality or objectivity.



VRG Controls LLC Code of Conduct and Ethics Policy

1.5.2 Mitigation

Individuals with conflicts of interest must take appropriate steps to mitigate and manage them, including recusal from decision-making processes and transparent disclosure to relevant parties.

1.6 Protection of Company Assets

1.6.1 Proper Use

Individuals are responsible for the proper and efficient use of the Company's assets, including physical property, intellectual property, information systems, and confidential information.

1.6.2 Unauthorized Use

Individuals must not engage in the unauthorized use, access, alteration, or disclosure of company assets or information.

1.7 Respectful and Inclusive Workplace

1.7.1 Fair Treatment

The Company is committed to maintaining a workplace free from discrimination, harassment, or any form of disrespectful behavior. Individuals must treat colleagues, clients, and stakeholders with respect, dignity, and fairness.

1.7.2 Diversity and Inclusion

Individuals must embrace and support diversity and inclusion, fostering an environment that values differences in perspectives, backgrounds, cultures, and experiences.

1.8 Confidentiality and Data Privacy

1.8.1 Confidential Information

Individuals must protect and maintain the confidentiality of sensitive and proprietary information entrusted to them by the Company, its clients, or stakeholders.

1.8.2 Data Privacy

Individuals must comply with applicable data privacy laws and regulations and ensure the proper handling, storage, and protection of personal data.



VRG Controls LLC Code of Conduct and Ethics Policy

1.9 Anti-Competitive Behavior

Fair and widespread competition stimulates innovation and efficiency, reduces the costs of products and services, ensures all organizations have equal opportunities, encourages the development of new or improved products or processes, and, in the long run, enhances economic growth and living standards. Anti-competitive behavior risks harming the reputation of an organization with its stakeholders and may create legal problems. To promote fair competition, procedures, and other safeguards to prevent engaging in or being complicit in anti-competitive behavior are in place.

1.10 Subcontractors and Suppliers

Subcontractors and suppliers must adhere to social responsibility best practices.

Company policies and practices integrate ethical, social, environmental, gender equality, and health and safety criteria for contractors and suppliers. Due diligence and monitoring of contractors and suppliers focus on preventing compromising the organization's commitments to social responsibility.

1.11 Reporting and Non-Retaliation

1.11.1 Reporting Violations

Individuals have a responsibility to report any suspected violations of this policy or any unethical behavior promptly. Reports should be made to the designated reporting channels established by the Company.

1.11.2 Non-Retaliation

The Company prohibits retaliation against individuals who report violations or participate in investigations related to this policy in good faith.

1.12 Consequences of Violations

1.12.1 Disciplinary Actions

Violations of this policy may result in disciplinary action, up to and including termination of employment or business relationship with the Company, as deemed appropriate by the circumstances.

1.12.2 Legal Consequences



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Violations of applicable laws or regulations may lead to legal consequences, including fines, penalties, or criminal charges.

1.13 Policy Acknowledgment and Compliance

1.13.1 Acknowledgment

All individuals associated with the Company must read, understand, and acknowledge their commitment to this policy.

1.13.2 Training and Communication

The Company will provide training and communication initiatives to ensure individuals are aware of their obligations under this policy.

1.14 Review

Governance deals with leadership, audits, internal controls, and shareholder rights. Policies and procedures are periodically reviewed, evaluated, and processes adjusted according to the outcome of the reviews. Changes are communicated throughout the organization.



VRG Controls LLC
Emergency Action Plan Program

2. EMERGENCY ACTION PLAN PROGRAM

1.15 Purpose and Scope

The purpose of this program is to provide a framework for planning for and responding appropriately to emergency situations related to health, safety, the environment, or security. The key to preparedness is to have an effective plan, well trained responders, and informed and responsive employees.

This program applies to all VRG Controls LLC employees.

1.16 Resources

Number	Title
29 CFR 1910 Subpart E	Exit Routes and Emergency Planning - Emergency Action Plans
	Emergency Drill Log

1.17 Emergency Action Plan

The emergency action plan shall establish guidelines for all reasonably foreseeable workplace emergencies. Thoughtful actions based on situation assessment are required when responding to an emergency.

The emergency action plan shall be kept in the workplace and made available to employees for review. Employees shall be informed of the plan orally.

1.18 Bridging Documents

When required, emergency response procedures of the Company and its clients or subcontractors shall be bridged to clarify the responsibilities for control of the emergency to ensure there is:

- An Ultimate Work Authority (UWA) over the work site established.
- A clear and direct line of communication set up between the work site and the Company / project / external parties.
- A clear definition of personnel roles and responsibilities.
- Only one authoritative source of information to external organizations, media, and relatives.



VRG Controls LLC Emergency Action Plan Program

1.19 Training

Employees shall undergo emergency action plan training as applicable to the authority having jurisdiction.

1.20 Responsibilities

Roles and responsibilities for employees such as fire wardens and supervisors during emergency situations shall be designated in accordance with jurisdictional requirements.

1.21 Plan Elements

1.21.1 Reporting Fire or Other Emergency

Employees will report fires by first calling 911 and pulling the alarm. Emergencies must be reported to management.

1.21.2 Emergency Evacuation

In the event of an emergency evacuation, employees will follow the evacuation routes.

1.21.3 Critical Operations

Employees who remain to operate critical operations before they evacuate must be trained in evacuation procedures specific to their responsibilities.

1.21.4 Accounting for Employees

Employees will be accounted for after evacuation by a roll call or checking in with their manager.

1.21.5 Medical or Rescue Duties

Employees who perform medical or rescue duties must be trained in the specific rescue duties.

1.21.6 More Information

The Safety Coordinator may be contacted by other employees for more information about the plan or an explanation of their duties under the plan.



VRG Controls LLC Emergency Action Plan Program

1.22 Emergency Drills

Drills will be conducted at regular intervals and will include the following scenarios:

- Fire Drills – Evacuation in case of fire or smoke hazards
- Severe Weather Drills – Procedures for tornadoes, hurricanes, or other natural disasters
- Hazardous Material Spill Drills – Response to fuel or chemical spills
- Medical Emergency Drills – First aid and response to medical crises
- Active Shooter/Violence Drills – Emergency actions for workplace violence

1.22.1 Responsibilities

- Safety Coordinator: Oversees emergency drill planning and execution.
- Department Managers: Ensure employees participate and understand emergency procedures.
- Employees: Follow drill instructions and report any safety concerns.
- Emergency Response Team: Trained personnel responsible for guiding others during an emergency.

1.22.2 Drill Frequency and Documentation

- Quarterly fire drills
- Annual severe weather drills
- Semi-annual hazardous material spill drills
- Annual active shooter/violence training
- Each drill will be documented, including the date, time, response time, and areas for improvement.

1.22.3 Procedures During Drills

- Alert and Communication: Notification will be given via alarms, intercoms, or verbal instructions.
- Evacuation or Shelter-in-Place: Employees follow pre-designated evacuation routes or shelter areas.



VRG Controls LLC Emergency Action Plan Program

- Accountability: Designated personnel ensure all employees are accounted for at assembly points.
- Post-Drill Review: Feedback is collected to identify improvements.

1.22.4 Training and Continuous Improvement

- All new employees must complete emergency response training within their first 30 days.
- Refresher training will be conducted annually.
- Drills will be evaluated, and adjustments will be made based on feedback and changing conditions.

1.23 Evacuation Procedures

Upon hearing the alarm or when directed by a warden:

- Prepare to evacuate.
- Get your workplace ready to be left unattended. Shut down computers; turn off gas and electrical equipment, if safe to do so.
- For fire, close the doors as you go – do not lock them. In the case of a bomb threat, leave doors open.
- Assist any person in immediate danger.
- Leave the building via the nearest safe route.
- Obey all directions from wardens.
- Move calmly to the assembly point or other advised area and stay there until the All Clear has been given.
- Follow closely the instructions of emergency services personnel.
- Wait for the OK to re-enter the building.



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1.24 Fire

- Call 911
- Assist any person in immediate danger (only if safe to do so).
- If safe to do so, close doors to minimize spread of the fire.
- Attack the fire only if safe to do so.
- Contact the nearest supervisor and follow their directions.
- Assist with the evacuation of mobility impaired occupants.
- Move to the evacuation assembly point or other safe location, and stay there until the All Clear has been given.
- Follow closely the instructions of emergency services personnel.

1.25 Medical Emergency

- Assess the situation.
- Do not move a victim unless they are exposed to a life-threatening situation.
- Contact the nearest first aid officer.
- In extreme emergency situations contact the ambulance service by dialing 911
- Arrange for the ambulance to be met at the front or other nominated area.
- Remain with the victim and administer first aid as appropriate until assistance arrives.
- Follow closely the instructions of emergency services personnel.

1.26 Bomb Threat

On receipt of a telephone bomb threat:

- Keep the caller talking (do not hang up).
- Remain calm and do not say or do anything that may encourage irrational behavior.
- Ask someone else to call 911.
- Do not use mobile phones. Turn them all off.
- Evacuate the building via alternate exits, leaving doors and windows open.



VRG Controls LLC Emergency Action Plan Program

- Take personal belongings with you, noting any suspicious parcels in your area as you leave.
- Move to assembly point maintaining a clear distance from parked vehicles.
- Follow closely the instructions of emergency services personnel.

1.27 Civil Disturbance

- Keep well clear of the disturbance and do not say or do anything that may encourage irrational behavior.
- Consider “locking down” the building to prevent unauthorized entry.
- Follow closely the instructions of emergency services personnel.
- Evacuate the building only if instructed to do so by emergency services personnel.

1.28 Attack Or Armed Threat

- Keep well clear of the intruder and do not say or do anything that may encourage irrational behavior.
- Notify 911.
- Note as many details as possible.
- Follow closely the instructions of emergency services personnel.
- Evacuate the building only if instructed to do so by emergency services personnel.
- Stay clear of windows.

1.29 Personal Preparation

- Know the location of emergency exits in your building.
- Plan an escape route from your office to each exit.
- Familiarize yourself with the location of any fire alarms in your building.
- Note the location of fire extinguishers.
- Familiarize yourself with the identity and location of the first aid officers and first aid kits.



VRG Controls LLC Emergency Action Plan Program

1.30 Tornadoes

Preparing for a tornado requires identifying a place to take shelter, being familiar with and monitoring your community's warning system, and creating procedures to account for personnel.

Underground areas, such as a basement or storm cellar, are the recommended places to shelter from a tornado. If an underground shelter is unavailable, you should:

- Seek a small interior room or hallway on the lowest floor possible.
- Stay away from doors, windows, and outside walls.
- Stay in the center of the room and avoid corners because they attract debris.
- Avoid auditoriums and other buildings that have flat, wide-span roofs.

1.31 Floods

If you are in an area that could flood, you should monitor National Oceanic and Atmospheric Administration (NOAA) Weather Radio or commercial radio and television stations for information about flood watches and warnings.

Be prepared to move to higher ground immediately if you receive information about the potential for flash flooding. You should be prepared to evacuate before water levels rise and potentially cut off evacuation routes.

Do not drive through flooded areas. As little as 6 inches of water can cause a vehicle to lose control or stall. A foot of water is enough to float many cars.

1.32 Earthquakes

If you are in an area where earthquakes are a potential threat, you should identify safe places to shelter in your workplace and home, such as under a sturdy table or desk or against an interior wall away from windows or tall objects that could fall on you.

The shorter the distance you must move to get to safety, the less likely you are to be injured.

Practice "drop, cover, and hold on" in each safe place so that they become an automatic response:

- Drop under a sturdy desk or table.
- Hold on to one leg of the table or desk.



VRG Controls LLC Emergency Action Plan Program

- Protect your eyes by keeping your head down.

1.33 Alert System

The alarm system shall be distinctive and recognizable as a signal to evacuate the work area or perform actions designated under the emergency action plan. For those employers with 10 or fewer employees in a particular workplace, direct voice communication is an acceptable procedure for sounding the alarm provided all employees can hear the alarm.

1.34 Plan Review

The emergency action plan shall be reviewed when the plan is developed, when the employee is initially assigned to a job, when the employee's responsibilities under the plan change, and when the plan is changed.



**VRG Controls LLC
Emergency Drill Log**

Location/Site:							
Comments:							
Date	Time	Type of Drill	Evacuation Time	Shelter-In-Place Time	Issued Identified? (Y/N)	Corrective Actions Needed? (Y/N)	Drill Coordinator Name
Additional Notes or Observations							



VRG Controls LLC
Access to Medical Records Program

3. ACCESS TO MEDICAL RECORDS PROGRAM

1.35 Purpose and Scope

This section establishes the minimum requirements for providing information to employees in accordance with medical and exposure records.

This procedure applies to all VRG Controls LLC employees.

1.36 References

Number	Title
29 CFR 1910 Subchapter Z	Toxic and Hazardous Substance - Access to Employee Exposure and Medical Records
CMS-FM-0007	Notice to Employees Form

1.37 Definitions

Acronym/Term	Definition
Designated Representative	Any individual or organization to whom an employee gives written authorization to exercise a right of access. For the purposes of access to employee exposure records and analyses using exposure or medical records, a recognized or certified collective bargaining agent shall be treated automatically as a designated representative without regard to written employee authorization.
Employee Medical Records	Records that concern the health status of an employee, and are made or maintained by a physician, nurse, or other health care personnel or technician.
Employee Exposure Records	A record which measures or monitors the amount of a toxic substance or harmful physical agent to which the employee is or has been exposed.
Exposure	An employee is subjected to a toxic substance or harmful physical agent in the course of employment through any route of entry (inhalation, ingestion, skin contact or absorption, etc.), and includes past exposure and potential (e.g., accidental or possible) exposure.

1.38 Medical and Exposure Records

The purpose for exposure and medical records access is to improve the detection, treatment, and prevention of occupational illness and disease.



VRG Controls LLC Access to Medical Records Program

1.39 Access

Employees shall be provided the right of access to relevant exposure and medical records. Upon employment and at least annually thereafter, current employees shall be informed of the existence, location, and availability of any records, the person responsible for maintaining and providing access to records, and each employee's rights of access to these records.

Whenever an employee or designated representative requests access to a record, access shall be provided in a reasonable time, place, and manner. If access to the record cannot be reasonably provided within 15 working days, the employee shall be notified of the reason for the delay within the 15 working days.

Whenever an employee or designated representative requests a copy of a record, either a copy of the record shall be provided without cost to the employee or representative, the necessary mechanical copying facilities (e.g., photocopying) made available without cost to the employee or representative for copying the record, or the record shall be loaned to the employee or representative for a reasonable time to enable a copy to be made.

Whenever access is requested to an analysis which reports the contents of employee medical records by either direct identifier (name, address, social security number, payroll number, etc.) or by information which could reasonably be used under the circumstances indirectly to identify specific employees (e.g., exact age, height, weight, race, sex, date of initial employment, job title, etc.), personal identifiers shall be removed before access is provided.

1.40 Retention

Employee medical and exposure records shall be preserved and retained for the duration of employment plus 30 years.

An employee medical record is a record concerning the health status of an employee that is made or maintained by a physician, nurse, or other health care personnel or technician including:

- Medical and employment questionnaires or histories, including job description and occupational exposure.
- Results of medical examinations and laboratory tests.
- Medical opinions, diagnoses, progress notes, and recommendations.
- First aid records.
- Descriptions of treatments and prescriptions.



<p style="text-align: center;">VRG Controls LLC Access to Medical Records Program</p>

- Employee medical complaints.

An employee exposure record is any of the following kinds of information:

- Environmental (workplace) monitoring or measuring of a toxic substance or harmful physical agent, including personal, area, grab, wipe, or other form of sampling, as well as related collection and analytical methodologies, calculations, and other background data relevant to interpretation of the results obtained.
- Biological monitoring results which directly assess the absorption of a toxic substance or harmful physical agent by body systems (e.g., the level of a chemical in the blood, urine, breath, hair, fingernails, etc.) but not including results which assess the biological effect of a substance or agent or which assess an employee's use of alcohol or drugs.
- Safety data sheets indicating that the material may pose a hazard to human health.
- A chemical inventory or any other record which reveals where and when used and the identity (e.g., chemical, common, or trade name) of a toxic substance or harmful physical agent.

1.41 Transfer of Records

If the Company ceases to do business, all exposure and medical records shall be transferred to the successor employer. The successor employer shall receive and maintain these records. If the Company ceases to do business and there is no successor employer, affected current employees shall be notified of their rights of access to records.



**VRG Controls LLC
Safety Policy**

4. SAFETY POLICY

1.42 Purpose and Scope

The purpose of this policy is to protect the health and well-being of employees, contractors, clients, and the communities in which work is performed. The goal is to maintain a workplace free from hazards by implementing proactive safety measures, continuous training, and strict adherence to industry regulations.

This procedure applies to all VRG Controls LLC employees.

1.43 Responsibilities

Safety Coordinators	
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1.44 Policy

The Occupational Safety and Health Act of 1970 clearly defines the requirement to provide safe and healthful working conditions for all employees. Therefore, the safety and health of our employees are the first considerations in operating this business.

Safety and health in our business must be part of every operation. Without question, it is every employee’s responsibility at all levels.

The company intends to comply with all laws. To do this, we must constantly be aware of conditions in all work areas that can produce injuries. No employees will be required to work at a job they know is not safe or healthful. Your cooperation in detecting hazards and, in turn, controlling them is a condition of your employment. Inform your supervisor immediately of any situation beyond your ability or authority to correct.

The personal safety and health of each employee are of primary importance. Preventing occupationally induced injuries and illnesses is so consequential that it will be given precedence over operating productivity whenever necessary. To the greatest degree possible, management will provide all mechanical and physical activities required for personal safety and health in keeping with the highest standards.

We will maintain an occupational safety and health program conforming to the best practices of organizations of this type. To be successful, such a program must embody proper attitudes toward injury and illness prevention on the part of supervisors and employees. It also requires cooperation in all safety and health matters, not only between supervisors and employees but also between each employee and their co-workers. Only through such a cooperative effort can a safety and health program, in the best interest of all, be established and preserved.



VRG Controls LLC Safety Policy

Our objective is a safety and health program that will reduce the number of injuries and illnesses to an absolute minimum, not merely in keeping with but surpassing the best experience of operations similar to ours. Our goal is zero accidents and injuries.

Our safety and health program includes:

- Providing mechanical and physical safeguards to the maximum extent possible
- Conducting a program of safety and health inspections to find and eliminate unsafe working conditions or practices, to control health hazards, and to fully comply with OSHA safety and health standards for every job
- Training all employees in good safety and health practices
- Providing necessary personal protective equipment and instructions for proper use and care
- Developing and enforcing safety and health rules, and requiring that employees cooperate with these rules as a condition of employment
- Investigating, promptly and thoroughly, every accident to find out what caused it, and correct the problem so it will not happen again

We recognize that responsibilities for occupational safety and health are shared:

- This employer accepts responsibility for leadership of the safety and health program, for its effectiveness and improvement, and for providing the safeguards required to ensure safe work conditions
- Supervisors are responsible for developing proper attitudes toward safety and health in themselves and in those they supervise, and for ensuring that all operations are performed with the utmost regard for the safety and health of all personnel involved, including themselves
- Employees are responsible for wholehearted, genuine operations of all aspects of the safety and health program – including compliance with the rules and regulations – and for continuously practicing safety and health while performing their duties

The safety coordinators will ensure that all employees are properly instructed and supervised in the safe operation of any machinery, tools, equipment, process, or practice that they are authorized to use or apply while at work.

Production is never so urgent that we cannot take the time to do our work safely.



VRG Controls LLC Safety Policy

1.45 Program Goals

Why have a workplace “Safety and Health Plan”? Taking risks is part of running a business, particularly for small business owners. You take risks in product development, marketing, and advertising in order to stay competitive. However, some risks should never be taken. One of these is risking the safety and health of workers. Safety begins at the top and goes downward throughout the Company. The primary goal is to continue operating a profitable business while protecting employees from injuries or illness. This can be achieved by delegating responsibility and accountability to all involved in the Company's operations.

Responsibility: Having to answer for activities and results

- Accountability: The actions taken by management to ensure the performance of responsibilities

In other words, to reach our goal of a safe workplace, everyone needs to take responsibility and be held accountable.

The benefits of achieving our goals are:

- Minimizing injuries and accidents
- Minimizing the loss of property and equipment
- Elimination of potential fatalities
- Elimination of potential permanent disabilities
- Elimination of potential OSHA fines
- Reductions in Workers' Compensation costs
- Reductions in operating costs
- Having the best “Safety and Health” conditions possible in the workplace

1.46 Management Commitment

The Company is committed to building an effective injury and illness prevention plan, putting it in writing, and integrating it into the entire operation.

Management is committed to this safety policy, and to providing direction and motivation by:

- Appointing Safety Coordinator(s) and/or Safety Committee Chairmen
- Establishing Company safety goals and objectives



**VRG Controls LLC
Safety Policy**

- Developing and implementing this written Safety and Health Program
- Ensuring total commitment to the Safety and Health Program
- Facilitating employees' safety training
- Establishing responsibilities for management and employees to follow
- Ensuring that management and employees are held accountable for performance of their safety responsibilities
- Establishing and enforcing disciplinary procedures for employees
- Reviewing the Safety and Health program annually, and revising or updating as needed

1.47 Labor and Management Accountability

All employees, both labor and management, need to understand their responsibilities under OSHA rules and be held accountable for complying with the rules as well as the Company's related policies.

It is the company's responsibility to provide a safe and healthful work environment for its employees. However, holding everyone accountable for their part in workplace safety and health is critical for a successful injury and illness prevention plan.

1.48 Assignment of Responsibility

The Safety Coordinator(s) and/or Safety Committee Members the Company has designated:

Safety Coordinators	
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The safety coordinators will assist managers in initiating, educating, and executing the safety program with:

- Introducing the safety program to new employees
- Following up on recommendations, suggestions, etc., made at the "Weekly" safety meetings. All topics of safety concerns must be documented accordingly
- Assisting the personnel in the execution of standard policies
- Conducting safety inspections on a periodic basis
- Addressing all hazards or potential hazards as needed
- Preparing monthly accident reports and investigations
- Maintaining adequate and available first aid supplies and safety equipment



VRG Controls LLC Safety Policy

- Ensuring an adequate number of qualified “First Aid Certified” people on the worksite
- Becoming thoroughly familiar with OSHA regulations and local and state safety codes
- Defining the responsibilities for the safety and health of all subordinates and holding each person accountable for their results through the formal appraisal system and where necessary, disciplinary procedures
- Emphasizing the unnecessary personal and financial losses of all accidents

1.49 Employee Involvement

Employees are required to work in compliance with the safety rules, report all accidents and near misses, and report all unsafe conditions or unsafe practices. To demonstrate the Company’s commitment to supporting the employees in these responsibilities, we will do the following:

Communication System:

- Encourage employees to inform the Company about workplace hazards without fear of reprisal
- Establish and maintain a centrally located “Safety Bulletin Board” where current, relevant information may be easily reviewed by employees
- Schedule general employee meetings where safety is freely and openly discussed by those present. These meetings will be regular, scheduled, and announced to all employees and managers to achieve maximum attendance. The purpose of these meetings is safety, and the concentration will be on:
 - Occupational accident and injury history at our work sites, with possible comparison to other locations within the Company
 - Feedback from the Safety Committee
 - Guest speakers concerned with workplace safety and health
 - When possible, brief audio-visual materials that relate to our business
- Conduct training programs for communicating with employees
- Provide a safety suggestion box so that employees, anonymously if desired, can communicate their concerns with management
- Document all communication efforts to demonstrate that an effective communication system is in place



VRG Controls LLC Safety Policy

1.50 Hazard Identification and Control

Periodic inspections and correction procedures provide methods of identifying existing or potential hazards in the workplace and eliminating or controlling them. Hazard control is essential to an effective injury and illness plan. We will ensure that safe work practices are followed and that unsafe conditions or procedures are identified and corrected properly and promptly.

Employees are encouraged to report possible hazardous situations, knowing their reports will be given prompt and serious attention. Workplace equipment and personal protective equipment will be maintained in good, safe working conditions.

Hazards, where possible, will be corrected as soon as they are identified. For those that cannot be immediately corrected, a target date for correction will be set. The Company will provide interim protection for workers while hazards are being corrected. A written tracking system will be established to help monitor the progress of the hazard correction process.

1.51 Accident/Incident Investigation

Employers and safety committees are required to investigate or assign responsibility for investigating accidents. Trained individuals, with the primary focus of understanding why the accident or incident occurred, will investigate accidents/incidents and what actions can be taken to preclude recurrence. The focus will be on solutions and never on blame. The investigations will be in writing and adequately identify the causes of the accident or near miss occurrence.

1.52 Worker Training

Training is another essential element of any injury and illness prevention plan. OSHA rules require each employer to train workers for any job or task they are assigned.

Our plan includes training and instruction:

- For all employees when they are first hired
- For all new employees for each specific task
- For all employees given new job assignments for which training has not already been received
- Whenever new substances, processes, procedures, or equipment are introduced into the workplace and present a new hazard



VRG Controls LLC Safety Policy

- Whenever new personal protective equipment or different work practices are used on existing hazards
- Whenever the Company is made aware of a new or previously unrecognized hazard
- For all supervisors to ensure they are familiar with the safety and health hazards to which employees under their immediate direction and control may be exposed

An effective safety and health plan requires proper job performance by everyone in the workplace.

The company is determined to ensure that all employees are knowledgeable about the materials and equipment with which they work, what known hazards are present, and how they are controlled.

1.53 Program Evaluation

Regular reviews will be held to look at the components of our safety and health plan, to determine what is working well and what changes, if any, are needed. All employees are encouraged to participate by keeping the Company informed of their concerns regarding the elements of this safety and health plan.

The success of this safety and health plan depends on two things: First, the Company must provide a safe and healthful environment in which the employee has the opportunity to work safely, and second, the employee must choose to work safely.

1.54 Supervisor/Foreman

The Supervisors and/or Foremen will establish an operating atmosphere to ensure that safety and health are managed in the same manner and with the same emphasis on production, cost, and quality control. This will be accomplished by:

- Regularly emphasizing that accident and health hazard exposure prevention are not only moral responsibilities but also a condition of employment
- Identifying operational oversights that could contribute to accidents which often result in injuries and property damage
- Participating in safety and health-related activities, (e.g. safety meetings, facility reviews, and correcting dangerous employee behavior)
- Explaining the safety policies and the hazards of each person's particular work
- Ensuring that the initial orientation of "new hires" is properly carried out



VRG Controls LLC Safety Policy

- Making sure that if a “Competent Person” is required, one is present to oversee, and instruct employees when necessary
- Never short-cutting safety for expediency, nor allowing workers to do so
- Consistently enforce safety rules and enforce discipline
- Conducting daily job-site inspections and correcting noted safety violations

1.55 Employees

It is the duty of all employees to know the safety rules, and conduct their work in compliance with these rules. Disregarding the safety and health rules shall be grounds for disciplinary action up to and including termination. It is also the duty of each employee to make full use of the safeguards provided for their protection. Every employee will receive an orientation when hired and receive a copy of any Company Safety and Health Programs. Employee responsibilities include the following:

- Reading, understanding, and following safety and health rules and procedures
- Signing the Code of Safe Practices and any other policy acknowledgments
- Wearing Personal Protective Equipment (PPE) at all times when working in areas where there is a possible danger of injury
- Wearing suitable work clothes as determined by the supervisor/foreman
- Performing all tasks safely as directed by their supervisor/foreman
- Reporting ALL injuries, no matter how slight, to their supervisor/foreman immediately and seeking treatment promptly
- Knowing the location of first aid, firefighting equipment, and safety devices
- Attending any and all required safety and health meetings
- Not performing potentially hazardous tasks, or using any hazardous material until properly trained, and following all safety procedures for those tasks
- Stop and ask questions when unsure about how to safely do the work

1.56 Medical Facilities

Each worksite will identify and contact an appropriate hospital or clinic to ensure they can handle possible emergencies and injuries in a timely manner. The location and contact information for the medical facility will be provided to all employees and posted at the worksite in a place where all employees gather.



VRG Controls LLC Safety Policy

1.57 Posting Requirements

All Federal, State, and Local posting requirements will be posted at the worksite in a place where all employees gather. Particularly the OSHA Job Safety and Health poster, state labor law postings, required insurance postings, and emergency contact numbers.

1.58 HSE Supervisor

At least one supervisor will be at the worksite at all times who is designated the Health, Safety, and Environmental Supervisor. This person will have at least appropriate OSHA 10 Hour Outreach Training and meet OSHA's definition for Competent or Qualified Person for the task at hand.

1.59 Evaluating Safety Program Performance

The effectiveness of this safety plan will be evaluated at least annually using leading and lagging indicators compared year after year to measure the effectiveness of the safety policy and established safe work procedures.

Lagging indicators compared will include the Experience Modification Rate (EMR) and other recorded injuries and incidents such as TRIR, DART, and fatalities.

Leading indicators compared include documented near-miss investigations, employee training records, recorded hazardous conditions investigations, safe work permits (e.g., confined spaces, hot work), and maintenance checklists.

The safety professional will complete an annual report on these safety program performance metric measurements, including suggested changes to the safety policy and safe work procedures.

1.60 Code of Conduct

All employees will abide by our company Code of Conduct when performing any company business activities. The Company will further ensure that company employees adhere to all client requirements and safe practices when performing work at the client site.

Employees will not:

- Engage in any unlawful or unethical activities
- Divulge any company or client confidential or proprietary information to unauthorized personnel
- Use or tolerate the use of, drugs or alcohol at the workplace
- Engage in any actions that constitute sexual harassment or workplace violence



VRG Controls LLC Safety Policy

1.61 Reporting Violations

Employees will be required to report any safety, health, or ethical violations to the company as soon as possible.

The company will establish a method that allows employees to report any Code of Conduct violations anonymously and without fear of reprisal.

1.62 Communication

This Code of Conduct will be communicated to all employees at their time of hire and reviewed at least annually or when any changes are made.

1.63 Disciplinary Actions

The company will investigate all reports of violations, and any employees found to have violated our Code of Conduct will be subject to progressive disciplinary action according to our disciplinary policy, up to and including termination.

Any violations of our Code of Conduct deemed to illegal or unlawful will be reported to the appropriate authorities.

1.64 Commitment

The goal of the Company is to operate a profitable business with the highest possible standards of integrity. This can be achieved by ensuring that all employees abide by our Code of Conduct. We are committed to operating in a professional and courteous manner in all of our business practices.

Owner Name	Owner Signature	Date
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VRG Controls LLC Environmental Policy
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5. ENVIRONMENTAL POLICY

1.65 Purpose and Scope

The purpose of this program is to ensure a healthier, more sustainable planet for current and future generations.

This program applies to all VRG Controls LLC employees.

1.66 Environmental Policy

It is Company policy to continue to maintain and operate our businesses in full compliance with applicable environmental laws, regulations, permits, and our Environmental Policy. The Company is committed to the protection of the environment and to identifying specific commitments (such as prevention of pollution). It is also our policy to promptly evaluate and resolve any suspected instances of non-compliance. We recognize the importance of our environment and natural resources and encourage all our employees to embrace our responsibility to society when using and planning the use of natural resources. We shall take an active role in discovering and implementing means to prevent harm to our environment and to our natural resources by continuous improvement in our environmental performance. The Company is committed to providing adequate personnel and other resources to comply with applicable environmental laws, regulations, and permits, and implement, maintain, and improve our Environmental Policy.

The intent of the program is to ensure involvement and commitment of employees and external parties in the environmental management system. Employees are made aware of the effects of environmental management on the quality of their own work environment and are encouraged to contribute actively to environmental management. Information is communicated and available to stakeholders that illustrate the environmental performance. Collaborations with other organizations, local, state, or federal governments are encouraged.



VRG Controls LLC Environmental Policy

1.67 Environmental Management System

An Environmental Management System is in place to help identify, manage, and mitigate risks and opportunities related to environmental impacts and performance.

The company management system should address the:

- collection of information related to environmental, health and safety,
- tracking of environmental targets with associated data and
- monitoring of progress towards objectives.

1.68 Environmental Obligations

In the conduct of its business the Company will seek to satisfy the following environmental obligations:

- Comply with applicable environmental laws and regulations. Compliance is a minimum obligation, and, where economically and commercially feasible, compliance with more stringent voluntary standards should be achieved.
- Make environmental issues (including staffing, budgets, recognition of liabilities, technological alternatives, etc.) a part of business operating and planning decisions.
- Assign adequate personnel and other resources to environmental compliance.
- Conserve and make efficient use of energy and natural resources, which are renewable, promote recycling and reuse of materials, and practice waste minimization.
- Whenever commercially possible, develop and provide products or services that minimize environmental impacts and are environmentally responsible in their intended use.
- Provide information to interested parties on the use, transportation, storage, and disposal of products.
- Develop and maintain adequate emergency preparedness plans in cooperation with community services and authorities.
- Educate, train, and motivate our employees to conduct their activities in an environmentally safe and responsible manner.



VRG Controls LLC Environmental Policy

1.69 Continual Improvement

Targets that improve its environmental performance and management system to meet changing business and regulatory needs have been established.

1.70 Key Performance Indicators (KPIs)

Metrics related to environmental performance are tracked.

Environmental performance KPIs are measured, recorded, and reported. Examples of these include:

- Greenhouse gas (GHG) emissions
- Water Use
- Electricity Use
- Waste Generated
- Any other Environmental Performance Metrics relevant

1.71 Environmental Impact

Companies have the responsibility to ensure that activities from operations do not cause harm to the environment. Company measures to prevent pollution include emissions controls, discharges to water, waste management, use and disposal of chemicals, etc. The public and the community are informed on any environmental, health, and safety impacts to them from the operations of the Company through management.

1.72 Environmental Sustainability

The Company has put in place practices to promote environmental responsibility. The following are best industry practices used:

- Redefine company vision, policies and strategies to include the 'triple bottom line' of sustainable development — economic prosperity, environmental quality and social equity.
- Develop sustainability targets and indicators (economic, environmental, social).
- Establish a sustainable production and consumption program with clear performance objectives to take the organization beyond compliance in the long-term.
- Work with suppliers to improve environmental performance, extending responsibility up the product chain and down the supply chain.



<p style="text-align: center;">VRG Controls LLC Environmental Policy</p>
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- Adopt voluntary charters, codes of conduct or practice internally as well as through industrial and international initiatives to confirm acceptable behavior and performance.
- Foster new technologies and operating procedures and development of new products/services with no or limited environmental impact.
- Measure, track and communicate progress in incorporating sustainability principles into business practices, including reporting against global operating standards.
- Conduct employee training on environmental issues and potential impacts from company operations.



VRG Controls LLC Code of Safe Practices Program
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6. CODE OF SAFE PRACTICES PROGRAM

1.73 Purpose and Scope

The purpose of this program is to outline a set of guidelines and standards for promoting a safe and healthy work environment.

This program applies to all VRG Controls LLC employees.

1.74 General Safety

All persons shall follow these safe practice rules, render every possible aid to safe operations, and report all unsafe conditions or practices to the supervisor.

Supervisors shall insist on employees observing and obeying every applicable Local, State, or Federal regulation and order as is necessary to the safe conduct of the work and shall take such action as is necessary to obtain compliance.

All employees shall be given frequent safety meetings. Instructions shall be given at least every 10 working days.

Anyone known to be under the influence of drugs or intoxicating substance which impair the employee's ability to safely perform the assigned duties shall not be allowed on the job while in that condition.

Horseplay, scuffling, and other acts which tend to have an adverse influence on the safety or well-being of the employees is prohibited.

Work shall be well planned and supervised to prevent injuries in the handling of materials and in working with equipment.

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 they might unnecessarily expose the employee or others to injury.

Employees shall not enter confined spaces unless it has been determined that it is safe to enter. An entry permit shall be completed before entry into permit-required spaces.

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 supervisor.

Crowding or pushing when boarding or leaving any vehicle or other conveyance shall be prohibited.



VRG Controls LLC Code of Safe Practices Program
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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 superintendent.

All injuries shall be reported promptly to the supervisor so that arrangements can be made for medical or first aid treatment. All accidents shall be investigated, and the findings documented. Corrective measures to prevent future accidents shall be implemented.

When lifting heavy objects, the large muscles of the leg instead of the smaller muscles of the back shall be used.

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

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.

Employees shall cleanse themselves thoroughly after handling hazardous substances and follow special instructions from authorized sources.

Any damage to scaffolds, falsework, or other supporting structures shall be immediately reported to the supervisor and repaired before use.

Work shall be so arranged that employees are able to face a ladder and use both hands while climbing.

Gasoline shall not be used for cleaning purposes.

No burning, welding, or other source of ignition shall be applied to any enclosed tank or vessel, even if there are openings, until it has first been determined that no possibility of explosion exists and authority for the work is obtained from the supervisor.

1.75 Tools and Equipment

All tools and equipment shall be maintained in good condition.

Damaged tools or equipment shall be removed from service and tagged "DEFECTIVE".

Pipe or Stillson wrenches shall not be used as a substitute for other wrenches.

Only appropriate tools shall be used for a specific job.

Wrenches shall not be altered by the addition of handle-extensions or "cheaters".

Files shall be equipped with handles and not used to punch or pry.

A screwdriver shall not be used as a chisel.

Wheelbarrows shall not be pushed with handles in an upright position.



VRG Controls LLC Code of Safe Practices Program
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Portable electric tools shall not be lifted or lowered by means of the power cord. Ropes shall be used.

Electric cords shall not be exposed to damage from vehicles.

In locations where the use of a portable power tool is difficult, the tool shall be supported by means of a rope or similar support of adequate strength.

1.76 Machinery and Vehicles

Only authorized persons shall operate machinery or equipment.

Loose or frayed clothing, long hair, dangling ties, finger rings, etc., shall not be worn around moving machinery or other areas where they may become entangled.

Machinery shall not be serviced, repaired, or adjusted while in operation, nor shall oiling of moving parts be attempted, except on equipment that is designed or fitted with safeguards to protect the person performing the work.

Where appropriate, lock-out procedures shall be used.

Employees shall not work under vehicles supported by jacks or chain hoists without protective blocking that will prevent injury if jacks or hoists should fail.

Air hoses shall not be disconnected at compressors until the hose line has been bled.

All excavations shall be visually inspected before backfilling to ensure that it is safe to backfill.

Excavating equipment shall not be operated near tops of cuts, banks, or cliffs if employees are working below.

Tractors, bulldozers, scrapers, and carryalls shall not operate where there is a possibility of overturning in dangerous areas like edges of deep fills, cut banks, and steep slopes.

When loading where there is a probability of dangerous slides or movement of material, the wheels or treads of loading equipment should be turned in the direction which will facilitate escape in case of danger, except in a situation where this position of the wheels or treads would cause a greater operational hazard.



VRG Controls LLC
General Safety and Health Provisions Program

7. GENERAL SAFETY AND HEALTH PROVISIONS PROGRAM

1.77 Purpose and Scope

The purpose of this program is to ensure the safety and health of employees and to comply with Health, Safety, and Environmental (HSE) requirements.

This program applies to all VRG Controls LLC employees.

1.78 Resources

Number	Title
29 CFR 1926 Subpart C	General Safety and Health Provisions

1.79 General Safety and Health Provisions

No employee shall work under conditions which are unsanitary, hazardous, or dangerous to health or safety. These conditions shall be mitigated to reduce risk.

1.80 Accident Prevention

Programs for accident prevention shall be put in place and maintained.

Personal protective equipment (PPE) shall be provided as required, including respirators and any other type of PPE.

1.81 Inspection

Frequent and regular inspections made by a competent person must be completed for job sites, materials, and equipment.

Every employer shall, in respect of every workplace controlled by the employer and, in respect of every work activity carried out by an employee in a workplace that is not controlled by the employer, to the extent that the employer controls the activity, ensure that the workplace committee or the health and safety representative inspects each month all or part of the workplace, so that every part of the workplace is inspected at least once each year.

An employee who believes on reasonable grounds that there has been a contravention of the regulations, or that there is likely to be an accident or injury to health arising out of, linked with, or occurring in the course of employment shall, make a complaint to the employee's supervisor.



VRG Controls LLC General Safety and Health Provisions Program
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1.82 Equipment Operation

Only qualified employees by training or experience shall operate equipment and machinery.

Unsafe equipment shall be either identified as unsafe by tagging or locking the controls to render them inoperable or be physically removed from operation.

Ensure that all equipment used at a work site: (a) is maintained in a condition that will not compromise the health or safety of workers using or transporting it, (b) will safely perform the function for which it is intended or was designed, (c) is of adequate strength for its purpose, and (d) is free from obvious defects.

1.83 Training

Each employee shall be instructed in the recognition and avoidance of unsafe conditions and the regulations applicable to the work environment to control or eliminate any hazards or other exposure to illness or injury.

Employees required to handle or use poisons, caustics, and other harmful substances shall be instructed regarding the safe handling and use, and be made aware of the potential hazards, personal hygiene, and personal protective measures required.

In job sites where harmful plants (e.g., poison ivy, poison oak, etc.) or animals (e.g., snakes, spiders, etc.) are present, employees who may be exposed shall be instructed regarding the potential hazards, how to avoid injury, and the first aid procedures to be used in the event of injury.

Employees required to handle or use flammable liquids, gases, or toxic materials shall be instructed in the safe handling and use of these materials and made aware of the specific requirements for each.

If work is to be done that may endanger a worker, ensure that the work is done (a) by a worker who is competent to do the work, or (b) by a worker who is working under the direct supervision of a worker who is competent to do the work. Ensure that workers are trained in the safe operation of the equipment the worker is required to operate.

1.84 Stop Work Authority

Employees must be trained in their right and obligation to stop work that is unsafe. Any employee may stop work without fear of retribution or retaliation.

1.85 Hazards



VRG Controls LLC
General Safety and Health Provisions Program

Ensure that the work site is kept clean and free from materials or equipment that could cause workers to slip or trip.



VRG Controls LLC Back Injury Prevention Program
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8. BACK INJURY PREVENTION PROGRAM

1.86 Purpose and Scope

The purpose of this program is to provide guidelines to eliminate back injuries while on the job.

This program applies to all VRG Controls LLC employees.

1.87 Back Injury Prevention Program

The key to maintaining a good, healthy back is to practice proper lifting techniques and exercises.

If you are one of the 96% of people who have some type of back pain, and you know that you have some type of back-related problem, you need to get plenty of rest and proper exercise in order to properly manage the problem.

ONLY 4% of back pain is directly attributed to an injury.

The bulk of back related pain is usually comprised of conditions like the aging process, urinary tract infections, and non-injury related causes.

1.88 Lifting Techniques

Always lift in a proper stance with the back in an upright position, and the legs slightly bent. This is known as the figure "4" lifting position, in which the leg muscles bear the largest part of the lift.

Grasp the item to be lifted with both hands, and pull it close to the body, making sure it is held firmly.

NEVER attempt to twist at the waist when lifting or moving an object from one point to another. A twist at the back can possibly cause injury to the lower back.

NEVER attempt to lift objects that you know to be too heavy for one person to lift. Utilize lifting devices whenever possible and seek help when there are no lifting devices available.

It may be necessary to seek the help of more than one person if the load is bulky or too heavy for one or two people.

NEVER stand flat footed and arch your back as you attempt to pick an object up from the floor.

When driving a vehicle, always see that your knees are higher than your hips / buttocks. This permits your lower back to be in a properly aligned position that will lessen the chance for a lower back injury.



VRG Controls LLC Back Injury Prevention Program
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NEVER attempt to lower or raise an object overhead. This causes the lower back to arch and places undue strain on the lower back and can result in lower back injury.

1.89 Other Techniques

Whenever possible, workstations should be at or slightly above waist level which is the most comfortable lifting zone for the back.

Proper sitting techniques aid in reducing tired backs and in the prevention of back pain or injury. Keep the knees higher than the buttocks and the back straight.

Proper standing techniques should be utilized by employees who may be required to perform standing type jobs during most of the day.

One tip is to use a small stool that can support one foot for a time and then alternate to the other foot. This will help in keeping the back from tiring.

If there is no stool available, you can bend at the knees occasionally to keep the back from tiring.

Good sleeping posture is necessary for an employee to wake up feeling refreshed and with a rested back. This includes the proper selection of bedding, particularly the mattress. If the bedding sags, and the back is bent in an awkward position, the person will awaken with a tired and sore back.

One method of correcting a sagging bed is to place a sheet of plywood that has been cut to the size of the mattress under the mattress to firm up the sag.

1.90 Exercises for Maintaining a Healthy Back

Another key to maintaining a healthy back is to implement and use a good exercise program. Before attempting to do any back exercise, particularly if you have had any type of back pain, see your doctor. The exercises illustrated here are often recommended by doctors and have proven successful at helping people maintain a healthy back.

1.90.1 Warm up Exercises

A number of easy warm up exercises will permit you to loosen up your muscles and back. These exercises are simple and take very little time and space to perform.

A common warm up exercise is a brief brisk walk of about 3-4 minutes. This can be done at home or at work prior to attempting any normal job duties. This brisk walk can even be a walk-in place.

Knee lifts, arm rotations, and neck rotations can aid in limbering and warming up the muscles.



VRG Controls LLC Back Injury Prevention Program
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1.90.2 Exercises

The following exercises are an excellent means of maintaining a good healthy back and help to loosen a stiff back.

- **Knee to Chest Raise:** Aid to limbering up a stiff back. Lay flat on your back. Raise right knee to chest. Hold for a count to five. Repeat five times. Do not lift with arms or hands.
- **Single Leg Raise:** To limber up and stretch the hamstring. Lie flat on back and slowly raise the right leg as high as you comfortably can. Hold and count to five. Slowly return to starting position. Repeat five times. Keep mid and lower back flat on the floor.
- **Half Sit-ups:** To strengthen the abdominal and back muscles. Assume basic position (flat on back, knees arched, arms on chest.) Slowly return to starting position. Repeat five times. Keep mid and lower back flat on the floor.
- **Pelvic Tilt:** Arms folded behind head, knees arched and lower and mid back flat on the floor. Firmly tighten the buttock muscles. Hold count to five. Relax buttock muscles. Repeat five times.
- **Nose to Knee Touch:** Flat on back, arms extended down each side, with knees arched and back flat on the floor. Raise left knee slowly to chest. Pull left knee to chest with both hands. Raise head and touch nose to knee. Hold and count to five. Repeat five times and then do exercise with the right knee, repeating five times.

1.90.3 Advanced Exercises

Always check with your doctor before doing any advanced exercises.

- **Scissors:** Flat on back with arms folded behind head, legs slightly apart until balanced. Slowly scissor legs up and down 10 times. Slowly scissor back and forth (crossways) 10 times. Alternate left over right and right over left. Return knees to chest and then feet to the floor. Keep good balance and lower back on the floor.
- **Hyper Extension:** Lie on stomach with arms folded and face on arms, legs extended with the top of the foot flat on the floor. Hold left leg straight. Slowly raise leg from hip about 6 to 8 inches. Return leg to floor. Repeat five times. Repeat same steps with the right leg. Do not lift pelvis to raise leg; keep the leg straight.



VRG Controls LLC
Bloodborne Pathogens Program

9. BLOODBORNE PATHOGENS PROGRAM

1.91 Purpose and Scope

The purpose of this section is to provide general principles to be followed when working with potentially infectious material.

This procedure applies to all VRG Controls LLC employees with the potential for exposure to infectious materials.

1.92 References

Number	Title
29 CFR1910 Subpart Z	Toxic and Hazardous Substances - Blood Borne Pathogens
29 CFR 1910 Subpart Z	Toxic and Hazardous Substances - Access to Employee Exposure and Medical Records Standard
29 CFR 1910 Subpart I	Personal Protective Equipment - Eye and face protection
Cal/OSHA T8 CCR Subchapter 7	General Industry Safety Order – Control of Hazardous Substances
CMS-FM-0013	Hepatitis B Vaccination Consent Form
CMS-FM-0014	Hepatitis B Vaccination Declination Form
CMS-FM-0015	Employee Report of Occupational Exposure
CMS-FM-0016	Bloodborne Pathogens Exposure Control Plan

1.93 Definitions

Acronym/Term	Definition
Bloodborne Pathogens	Pathogenic microorganisms that are present in human blood and can cause disease in humans. These pathogens include, but are not limited to, Hepatitis B Virus (HBV) and Human Immunodeficiency Virus (HIV).
Contaminated Laundry	Laundry that has been soiled with blood or other potentially infectious materials or that may contain sharps.
Contaminated Sharps	Any contaminated object that can penetrate the skin including but not limited to needles, scalpels, broken glass, broken capillary tubes, and exposed ends of dental wires.
Decontamination	The use of physical or chemical means to remove, inactivate, or destroy bloodborne pathogens on a surface or item to the point where they are no longer capable of transmitting infectious particles and the surface or item is rendered safe for handling, use, or disposal.
Exposure Incident	A specific eye, mouth, other mucous membrane, non-intact skin, or parenteral contact with blood or other potentially infectious material that results from the



VRG Controls LLC
Bloodborne Pathogens Program

Acronym/Term	Definition
	performance of an employee's duties.
Infectious Waste	Also called biomedical waste, this includes human waste, animal waste, and objects and materials contaminated with blood and body fluids containing disease-causing micro-organisms or viruses.
Occupational Exposure	Reasonably anticipated skin, eye, mucous membrane, or parenteral contact with blood or other potentially infectious materials that may result from the performance of an employee's duties.
Other Potentially Infectious Materials	Semen, vaginal secretions, cerebrospinal fluid, synovial fluid, pleural fluid, pericardial fluid, peritoneal fluid, amniotic fluid, saliva in dental procedures, any body fluid that is visibly contaminated with blood, and all body fluids in situations where it is difficult or impossible to differentiate between body fluids. Any unfixed tissue or organ (other than intact skin) from a human (living or dead). Also, HIV-containing cell or tissue cultures, organ cultures, and HIV- or HBV-containing culture medium or other solutions, and blood, organs, or other tissues from experimental animals infected with HIV or HBV.
Parenteral	Piercing mucous membranes or the skin barrier through such events as needle sticks, human bites, cuts, and abrasions.
Sharp	Medical slang for a needle or similar pointed object.
Source Individual	Any individual, living or dead, whose blood or other potentially infectious materials may be a source of occupational exposure to the employee.
Sterilization	The use of a physical or chemical procedure to destroy all microbial life, including highly resistant bacterial endospores.
Universal Precautions	An approach to infection control. According to the concept of Universal Precautions, all human blood and certain human body fluids are treated as if known to be infectious for HIV, HBV, or other bloodborne pathogens.
Work Practice Controls	Controls that reduce the likelihood of exposure by altering the way a task is performed (e.g., prohibiting recapping of needles by a two-handed technique).

1.94 Bloodborne Pathogens Program

Approximately 5.6 million American employees are at risk of developing various types of illnesses due to their exposure to bloodborne pathogens such as the human immunodeficiency (HIV) and hepatitis B (HBV) viruses and other potentially infectious materials in the workplace. In recent years there has been a significant increase in the number of cases reported. This poses a serious problem for exposed employees and their employer.

The Exposure Control Plan must be readily available to employees and employees must be informed of its location.



VRG Controls LLC Bloodborne Pathogens Program
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1.95 General

Good general principles shall be followed when working with potentially infectious material. For example:

- It is prudent to minimize all exposure to bloodborne pathogens / potentially infectious material.
- Risk of exposure to bloodborne pathogens should never be underestimated.
- Institute as many work practices and engineering controls as possible to eliminate or minimize employee exposure to bloodborne pathogens / potentially infectious materials.
- Any site working with potentially infectious materials shall have an Exposure Control Plan that meets the letter and intent of the local regulatory Pathogens Standard. The plan shall be easily accessible to all employees and they shall be informed of where to find it. The objective of this Plan is twofold:
 - To protect employees from the health hazards associated with bloodborne pathogens by eliminating or minimizing employee exposure.
 - To provide appropriate treatment and counseling should an employee be exposed to bloodborne pathogens / potentially infectious materials.

It is important to keep the Exposure Control Plan up to date. To ensure currency, the Plan shall be revised and updated as follows:

- Bi-annually.
- Whenever new or modified tasks and procedures are implemented that affect occupational exposure of employees.
- Whenever employees' jobs are revised such that new instances of occupational exposure may occur.
- Whenever new functional positions are established that may include exposure to bloodborne pathogens.



VRG Controls LLC Bloodborne Pathogens Program
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1.96 Exposure Determination

The Exposure Control Plan shall identify job classifications in which employees have regular exposure, some exposure, or no occupational exposure to bloodborne pathogens and shall identify tasks and procedures in which occupational exposure to bloodborne pathogens occur.

The exposure determination shall be made without regard to the use of personal protective equipment (PPE).

1.97 Methods of Compliance

Universal precautions shall be observed by personnel to prevent contact with blood or other potentially infectious materials. In accordance with the concept of universal precautions, personnel shall treat blood and other potentially infectious materials as though potentially infected with HBV, HIV, or other bloodborne pathogens, particularly when differentiation between body fluid types is difficult or impossible. Proper PPE must be utilized.

1.98 Engineering and Work Practice Controls

Engineering and work practice controls shall be used to minimize employee exposure. These controls and a copy of the site-specific exposure control plan shall be provided to employees in a reasonable time, place, and manner.

The Exposure Control Plan must include the various types of bodily fluids that the effected employees can reasonably be exposed to in the workplace to include, but is not limited to blood, mucus, and saliva.

Where occupational exposure remains after institution of these controls, PPE shall also be used. Engineering controls may include installation of mechanical pipe-fitting devices, biosafety cabinets, and safety equipment for centrifuges; suitable facilities and mechanisms for quick drenching or flushing of the eyes and mucous membranes shall be provided in the work area for immediate emergency use; and handwashing facilities shall have hot and cold running water.

Engineering controls shall be examined and maintained or replaced on a regular schedule to ensure their effectiveness.

Training and monitoring of proper work practices shall be provided with employees instructed in performing all tasks in the use of appropriate precautions, engineering and work practice controls, and PPE.



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1.98.1 Handwashing

Handwashing facilities shall be readily accessible to employees (e.g., no further than what would be considered reasonable for location of restrooms).

When provision of handwashing facilities is not feasible, an appropriate antiseptic hand cleanser in conjunction with clean cloth / paper towels or antiseptic towelettes shall be provided to employees.

When antiseptic hand cleansers or towelettes are used, hands shall be washed with soap and running water as soon as feasible following exposure incidents whether or not exposure is apparent.

Employees shall wash their hands immediately, or as soon as feasible, after removal of gloves or other PPE. Employees shall wash hands and any other skin with soap or germicidal agents and water, or flush mucous membranes with water, immediately or as soon as feasible following contact of such body areas with blood or other potentially infectious materials, whether or not contact is apparent.

1.98.2 Skin Surfaces

Eating, drinking, smoking, applying cosmetics or lip balm, handling contact lenses, and touching skin surfaces with contaminated hands is prohibited in work areas where there is the reasonable likelihood of occupational exposure to bloodborne pathogens and other potentially infectious materials. Personnel shall thoroughly wash hands with soap and running water prior to engaging in these types of activities.

Food and drink shall not be kept in refrigerators, freezers, shelves, or cabinets or on countertops or benchtops where blood or other potentially infectious materials are present.

1.99 Personal Protective Equipment (PPE)

Where there is potential for occupational exposure, the Company shall provide, at no cost to the employee, appropriate PPE such as, but not limited to, gloves, gowns, replaceable coveralls, laboratory coats, face shields or masks, eye protection, mouthpieces, resuscitation bags, pocket masks, or other ventilation devices.

PPE will be considered appropriate only if it does not permit blood or other potentially infectious materials to pass through to or reach the employee's work clothes, street clothes, undergarments, skin, eyes, mouth, or other mucous membranes under normal conditions of use and for the duration of time that the protective equipment will be used.



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The Company shall ensure that employees use appropriate PPE unless it can be shown that an employee temporarily and briefly declined to use PPE when, under rare and extraordinary circumstances, it was the employee's professional judgment that in the specific instance its use would have prevented the delivery of healthcare or public safety services or would have posed an increased hazard to the safety of the employee or coworker. When the employee makes this judgment, the circumstances shall be investigated and documented to determine whether changes can be instituted to prevent such occurrences in the future.

Training and instruction on the proper use and limitations of PPE shall be provided with proper use enforced.

Appropriate PPE in the proper sizes shall be readily accessible at the worksite, on response vehicles, or issued to employees, and shall be maintained to ensure and promote its use. Employees shall know where to obtain protective equipment.

Hypoallergenic gloves, glove liners, powderless gloves, or other similar alternatives shall be readily accessible to those employees who are allergic to the gloves normally provided.

1.99.1 Cleaning, Repair, and Replacement

The cleaning, laundering, and disposal of PPE shall be provided in accordance with this procedure at no cost to the employee.

The repair or replacement of PPE shall be provided as needed to maintain its effectiveness at no cost to the employee.

Personnel shall be responsible for notifying their supervisor of the need to repair or replace PPE or clothing.

1.99.2 Contaminated PPE

If a garment(s) is penetrated by blood or other potentially infectious materials, the garment(s) shall be removed immediately or as soon as feasible. In such cases where there is reasonable expectation that an employee's garments may become contaminated by blood or other potentially infectious materials during the performance of duties, the employee shall take steps to ensure that clean garments are available.

Clothing, disposable PPE, and other items visibly contaminated with blood and not known to be contaminated with blood shall be treated as biohazardous waste regardless of the amount of blood present and shall be subject to regulated waste handling requirements. Contaminated items shall be placed in red bags or containers that meet the requirements of this procedure and shall be transported to a designated central collection point for biohazardous waste. Biohazardous waste shall be handled in accordance with local, state, and federal regulations.



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1.99.3 Gloves

Disposable (single use) gloves, such as surgical or examination gloves, shall be replaced as soon as practical when contaminated, or as soon as feasible, if they are torn, punctured, or when their ability to function as a barrier is compromised.

Disposable (single use) gloves shall not be washed or decontaminated for re-use but shall be placed in an appropriately designated area or container for disposal in accordance with this procedure.

Utility gloves may be decontaminated for re-use if the integrity of the glove is not compromised. However, they shall be discarded if they are cracked, peeling, torn, punctured, or exhibit other signs of deterioration or when their ability to function as a barrier is compromised.

Disposable (single use) gloves, such as surgical or examination gloves, shall be worn under utility gloves to protect against penetration of fluids.

Gloves visibly contaminated with blood shall be considered infectious waste and shall be disposed of in red biohazard waste containers in the work area.

1.99.4 Eye and Face Protection

Masks in combination with eye protection devices, such as goggles / glasses with solid side shields or chin length face shields, shall be worn whenever splashes, spray, spatter, or droplets of blood or other potentially infectious materials may be generated and eye, nose, or mouth contamination can be reasonably anticipated.

Eye protection and face shields issued for the exclusive use of one employee shall be cleaned and disinfected after each day's use, or more often if necessary and following contamination. Those used by more than one employee shall be thoroughly cleaned and disinfected after each use.

Personal protective clothing shall be considered the same as PPE and shall be treated as such for the purposes of this procedure.

1.100 Housekeeping

Work areas shall be maintained in a clean and sanitary condition. Appropriate written schedules for cleaning and methods of decontamination based upon the location within the facility, type of surface to be cleaned, type of soil present, and tasks or procedures being performed in the area shall be developed and implemented.



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All equipment and environmental and working surfaces shall be cleaned and decontaminated after contact with blood or other potentially infectious materials using any sterilization or disinfection procedures or sterilizing agent or high-level disinfectant that will kill viruses if used as directed.

All personnel covered under this procedure shall observe universal precautions in the performance of housekeeping duties and shall adhere to the requirements of this procedure for use of PPE to protect themselves and their fellow employees against unnecessary exposure.

1.101 Regulated Waste

Contaminated sharps shall be discarded immediately or as soon as feasible in containers that are:

- Closable.
- Puncture resistant.
- Constructed to contain all contents and prevent leakage of fluids during handling, storage, transport, or shipping.
- Labeled or color-coded (in accordance with this procedure). During use, containers for contaminated sharps shall be:
 - Easily accessible to personnel and located as close as feasible to the immediate area where sharps are to be used or can be reasonably anticipated to be found.
 - Maintained upright throughout use.
 - Replaced routinely and not be allowed to overfill.

When moving containers of contaminated sharps from the area of use, the container shall be:

- Closed immediately prior to removal or replacement to prevent spillage or protrusion of contents during handling, storage, transport, or shipping.
- Placed in a secondary container if outside contamination of the regulated waste container occurs or leakage is possible. The secondary container shall meet the criteria of this procedure.

Regulated waste shall be placed in containers that meet the criteria identified for contaminated sharps in this procedure.

Disposal of all regulated waste shall be handled in accordance with applicable Company procedures governing waste removal and regulations of the States and Territories.



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Contaminated or potentially contaminated laundry shall be handled as little as possible with a minimum of agitation.

Contaminated or potentially contaminated laundry shall be bagged or containerized at the location where it was used and shall not be sorted or rinsed in the location of use.

Contaminated or potentially contaminated laundry shall be placed and transported in bags or containers labeled or color-coded in accordance with this procedure. However, when a facility utilizes universal precautions in the handling of all soiled laundry, alternative labeling or color-coding is sufficient if it permits all employees to recognize the containers as requiring compliance with universal precautions.

Whenever contaminated or potentially contaminated laundry is wet and presents a reasonable likelihood of soak-through or leakage of fluids from the bag or container, the laundry shall be placed and transported in bags or containers which prevent soak-through or leakage of fluids to the exterior.

Employees who have contact with contaminated or potentially contaminated laundry shall wear protective gloves and other appropriate PPE.

When a facility ships contaminated or potentially contaminated laundry offsite to a second facility that does not utilize universal precautions in the handling of all laundry, the facility generating the contaminated or potentially contaminated laundry shall place such laundry in bags or containers that are labeled or color-coded in accordance with this procedure.

1.102 Hepatitis B Virus (HBV) and Post-Exposure Evaluation and Follow Up

The Company shall make available the HBV vaccine, vaccination series, and post-exposure evaluation and follow up to all employees who have had an exposure incident.

All medical evaluations and procedures, including the HBV vaccine, vaccination series, and post-exposure evaluation and follow up shall be:

- Made available at no cost to the employee.
- Made available to the employee at a reasonable time and place.
- Performed by or under the supervision of a licensed physician or under the supervision of another licensed healthcare professional.
- Provided according to recommendations of the governing Public Health Service that are current at the time these evaluations and procedures take place, except as specified herein.



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The Company shall ensure that employees covered under this procedure have been offered the Hepatitis B vaccination and have signed either consent or a declination form.

All laboratory tests shall be conducted by an accredited laboratory at no cost to the employee.

1.102.1 Hepatitis B Virus (HBV) Vaccination Unit

Persons at substantial risk for HBV who are demonstrated or judged likely to be susceptible should be vaccinated. The HBV vaccination is recommended for any previously unvaccinated healthcare worker who has a needle stick or other percutaneous accident with a sharp instrument or per mucosal (ocular or mucous membrane) exposure to blood.

An HBV vaccination shall be made available to employees after employees have received training required by local regulation and within 10 working days of initial assignment to tasks with occupational exposure, unless:

- The employee has previously received the complete HBV vaccination series.
- Antibody testing has revealed that the employee is immune.
- The vaccine is contraindicated for medical reasons.

Participation in a prescreening program shall not make a prerequisite for receiving the HBV vaccination.

If the employee initially declines the HBV vaccination, but at a later date while still covered under this procedure, decides to accept the vaccination, the HBV vaccination shall be made available to the employee at that time at no cost to the employee.

If a routine booster dose(s) of the HBV vaccine is recommended by the Public Health Service at a future date, such booster dose(s) shall be made available in accordance with local regulation and this procedure.

Copies of consent and declination forms shall be retained and shall be maintained in employee medical files in accordance with this procedure.

1.103 Reporting Occupational Exposure

Employees shall report all occurrences of occupational exposure as soon as feasible after the exposure. The Company will initiate the post-exposure evaluation and follow up process in response to reports of occupational exposure.

The following steps shall be taken in reporting occupational exposure to bloodborne pathogens or other potentially infectious materials:



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- Employees shall notify their immediate supervisor as soon as feasible following an exposure incident.
- Employees shall complete an occupational exposure report.
- Employees shall sign the occupational exposure report and give the signed and completed form to the immediate supervisor for review and signoff.
- The supervisor shall immediately forward a copy of the report to management to initiate post-exposure evaluation and follow up.

Employees and supervisors may refer to the instructions contained in the Exposure Control Plan for reporting occupational exposure incidents to ensure that proper notifications and paperwork have been completed.

1.103.1 Post-Exposure Evaluation and Follow Up

Following a report of an exposure incident, the exposed employee shall immediately be offered confidential medical evaluation and testing.

Post-exposure evaluation and follow up shall consist of at least the following elements:

- Documentation of the route(s) of exposure.
- Identification, documentation, and testing of the source individual, unless it can be established that identification is infeasible or prohibited by state or local law.
- Collection and testing of blood for HBV and HIV serological status.
- Post-exposure prophylaxis as recommended by the Public Health Service when medically indicated.
- Counseling.
- Evaluation of reported illnesses.

If the employee consents to baseline blood collection but does not give consent at that time for HIV serological testing, the sample shall be preserved for at least 90 days. If, within 90 days of the exposure incident, the employee elects to have the baseline sample tested, such testing shall be done as soon as feasible.

After obtaining the exposed employee's consent for follow up testing, a sample of blood shall be collected and tested for HBV and/or HIV as soon as feasible following the exposure incident. The sample shall be collected and tested within 30 days of the exposure incident.

Post-exposure evaluation and follow up shall also include:



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- Counseling.
- Evaluation of reported illnesses.

Following post-exposure evaluation and follow up, the exposed employee shall be provided with a copy of the evaluating healthcare professional's written opinion.



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1.103.2 Post-Exposure Testing of the Source Individual

A good faith effort shall be made to both identify and obtain consent for HBV and HIV testing of the source individual.

The source individual's blood shall be collected and tested as soon as feasible and after consent is obtained to determine HBV and HIV infectivity.

If consent is not obtained, the Company shall establish that legally required consent cannot be obtained, and the source individual shall not be tested.

When the source individual's consent is not required by law, the source individual's blood, if available, shall be collected, tested, and the results documented. The condition, "if available," applies to blood samples that have been drawn from the source individual for other testing.

When the source individual is already known to be infected with HBV or HIV, testing for the source individual's known HBV or HIV status need not be repeated.

Results of the source individual's testing shall be made available to the exposed employee, and the exposed employee shall be informed of applicable laws and regulations concerning disclosure of the identity and infectious status of the source individual.

1.103.3 Post-Exposure Evaluation and Follow Up Results

Healthcare professionals who are responsible for evaluating employees following exposure incidents shall receive and review:

- A copy of the regulation.
- A description of the exposed employee's duties as they related to the exposure incident.
- Documentation of the route(s) of exposure and circumstances under which exposure occurred.
- Results of the source individual's blood testing, if available.

Maintenance of all medical records relevant to the treatment of the exposed employee, including vaccination status, is the responsibility of the Company.

Following evaluation of the exposed employee and testing of the source individual (if testing is done), the exposed employee shall be provided with a report, at minimum, containing:

- Documentation of the route(s) of exposure and the circumstances under which the exposure incident occurred.



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- Identification and documentation of the source individual unless it can be established that identification is infeasible or prohibited by state or local law.

The exposed employee shall be provided with a copy of the evaluating healthcare professional's written opinion within 15 days of the completion of the evaluation.

The healthcare professional's written opinion for an HBV vaccination shall be limited to whether an HBV vaccination is indicated for an employee and whether the employee has received such vaccination.

The healthcare professional's written opinion for post-exposure evaluation and follow up shall be limited to:

- A statement that the employee has been informed of the results of the evaluation.
- A statement that the employee has been told about medical conditions resulting from exposure to blood or other potentially infectious materials which require further evaluation or treatment.

The healthcare professional's other findings or diagnoses shall remain confidential and shall not be included in the written report.

Following all evaluations and testing, an evaluation shall be made of the "failures of control" at the time of the incident using the data compiled to identify and make recommendations for correction of problems in order to prevent recurrence of similar incidents.

1.104 Communications of Hazards to Employees

Warning labels shall be affixed to warn employees of items containing blood or other potentially infectious material:

- Containers of regulated waste, refrigerators, and freezers containing blood or other potentially infectious materials which require further evaluation or treatment.
- Other containers used to store, transport, or ship blood or other potentially infectious materials, except where red bags or red containers have been substituted for labels.
- Labels required by this section shall include a picture of the biohazard symbol shown in the Exposure Control Plan.
- Labels shall be fluorescent orange, orange-red, or predominantly so, with lettering or the symbols in a contrasting color.
- Labels required by this section shall be affixed as close as feasible to the container by adhesive, string, wire, or other method that prevents their loss or unintentional removal.



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- Red bags or red containers may be substituted for labels.
- Individual containers of blood or other potentially infectious materials that are placed in a labeled container during storage, transport, shipment, or disposal are exempted from the labeling requirement.
- Contaminated equipment shall be labeled in accordance with this procedure and shall also state those portions of the equipment that remain contaminated.

1.105 Information and Training

Employees who have the potential to be exposed to bodily fluids must be trained on the subject of bloodborne pathogens upon initial hire and annually thereafter. The training must be documented and retained for a minimum of 3 years.

Communicating hazards to employees and providing training and information are paramount in the implementation of this procedure since protective measures such as PPE and proper work practices will not be effective unless employees are instructed in their correct use. Training is also an important factor in risk reduction because not all employees are aware of the risks they may face in the workplace. Information programs can increase employee acceptance of the HBV vaccine and employee compliance with policies regarding PPE.

The Company shall be responsible for ensuring that employees covered under this procedure participate in the Bloodborne Pathogens Awareness Training Program, which shall be provided during working hours at no cost to the employee.

Employees that are exposed to bloodborne pathogens must undergo training applicable in accordance with local jurisdiction.

Training shall be provided:

- At the time of initial assignment.
- At least annually thereafter.

Annual training for all employees shall be provided within one year of their previous training.

Additional training shall be provided when changes such as modification of tasks or procedures or institution of new tasks or procedures affect the employee's occupational exposure. The additional training may be limited to addressing the new exposures created.

Material appropriate in content and vocabulary to educational level, literacy, and language of employees shall be used.

The training program shall contain at a minimum the following elements:



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- An accessible copy of the regulatory text and an explanation of its contents.
- A general explanation of the epidemiology, symptoms, and modes of transmission of bloodborne pathogens and diseases.
- An explanation of an Exposure Control Plan and how the employee can obtain a copy of the written plan.
- An explanation of the appropriate methods for recognizing tasks and other activities that may involve exposure to blood and other potentially infectious materials.
- An explanation of the use and limitations of methods that will prevent or reduce exposure, including appropriate engineering controls, work practices, PPE, and clothing.
- Information on the types, proper use, location, removal, handling, decontamination, and disposal of PPE and clothing.
- An explanation of the basis for selection of PPE and clothing.
- Information on the HBV vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine and vaccination will be offered free of charge.
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or other potentially infectious materials.
- An explanation of the procedure to follow if an exposure incident occurs, including the method of reporting the incident and the medical follow up that will be made available.
- Information on the post-evaluation and follow up that the Company is required to provide for the employee following an exposure incident.
- An explanation of the signs, labels, and color-coding system being utilized by the Company as defined in this procedure.
- An opportunity for interactive questions and answers with the trainer.

The person conducting the training shall be knowledgeable in the subject matter covered by the elements contained in the training program as it relates to the workplace that the training will address.

The person conducting the training shall be required to ensure that the training program and training records meet the requirements of and are maintained in accordance with regulation and this procedure.



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1.106 Recordkeeping

1.106.1 Medical Records

Accurate medical records for each employee with occupational exposure shall be maintained for at least the duration of employment plus 30 years. These records shall be kept by the Company. The medical provider shall not be relied upon to keep the records for this timeframe.

The employee record shall include:

- The name and social security number of the employee.
- A copy of the employee's vaccination status including the date of all vaccinations and any medical records relative to the employee's ability to receive the vaccination as defined in this procedure.
- A copy of all results of examinations, medical testing, and follow up procedures as defined in this procedure.
- A copy of the healthcare professional's written report as required by this procedure.
- A copy of the information provided to the healthcare professional.

Employee medical records shall be kept confidential and not disclosed or reported without the employee's express written consent to any person within or outside the workplace, except as required by this procedure or as may be required by law.

All records required to be maintained by this procedure shall be made available upon request for examination and copying, to the subject employee or anyone having written consent of the subject employee, to the responsible party. Records shall be made available in accordance with the regulatory requirements.

Access to personal information shall be controlled in accordance with applicable legal, regulatory, and Company requirements (e.g., FFD Rule, Privacy Act, 29 CFR1910.1020).

1.106.2 Training Records

Training records shall include:

- The dates of the training sessions.
- The contents or a summary of the training sessions.
- The names and qualifications of the person(s) conducting the training.



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- The names and job titles of all persons attending the training sessions.

Training records shall be maintained for 3 years from the date on which the training occurred in the Company designated electronic learning management system.

1.107 Regulatory Reporting Requirements

As a basic requirement, all work-related needle stick injuries and cuts from sharp objects that are contaminated with another person's blood or other potentially infectious material shall be recorded. The case shall be entered on the OSHA 300 Log as an injury. To protect the employee's privacy, the employee's name shall not be entered on the OSHA 300 Log.

- If the date of the event or exposure is known, the original injury shall be recorded with the date of the event or exposure.
- If there are multiple events or exposures, the most recent injury shall be recorded with the date that seroconversion is determined.



VRG Controls LLC
Compressed Air Safety Program

10. COMPRESSED AIR SAFETY PROGRAM

1.108 Purpose and Scope

The purpose of this program is to provide information on the properties and hazards of working with compressed air.

This program applies to all VRG Controls LLC employees who work with or around compressed air.

1.109 Resources

Number	Title
29 CFR 1910 Subpart P	Hand and Portable Powered Tools and Equipment
29 CFR 1926 Subpart I	Power-Operated Hand Tools
29 CFR 1910 Subpart M	Compressed Gas and Compressed Air Equipment-Air Receivers

1.110 Compressed Air Safety Program

Because working with compressed air is so commonplace, people fail to recognize it as the potential hazard that it is. As little as 12 p.s.i. can be deadly in the wrong circumstances and a small slip up can lead to big problems.

People shall not be cleaned off with compressed air. The regulations relate to the cleaning of objects or items, (e.g., blow drying parts, etc.).

It is prohibited to use compressed air to clean clothing while worn or any part of the body under any circumstances.

Compressed air shall not be used for cleaning or blow down activities unless air pressure is regulated to below 30 p.s.i. and areas have been isolated from pedestrian traffic and effective chip guarding and personal protective equipment is implemented.

1.111 Guarding

The use of protective cone air nozzles is generally acceptable for protection of the operator; however, barriers, baffles or screens may be required to protect other employees near the operator if they are exposed to flying chips or particles.



VRG Controls LLC Compressed Air Safety Program

1.112 Safety Valves

All safety valves shall be tested frequently and at regular intervals to ensure they are in proper operating condition and that they cannot be made inoperable by any means.

Safety valves, indicating / controlling devices, and other safety appliances shall be constructed, located, and installed so they cannot be rendered inoperative by any means.

1.113 Inspections

Compressed air cylinders shall be inspected regularly according to manufacturers recommended methods and frequency.

The outside of the cylinder shall be inspected for:

- Cracks
- Leaks
- Bulging
- Defective valves
- Signs of physical abuse
- Fire or heat damage
- Detrimental rusting or corrosion

Any cylinder that has a crack or leak, is bulged, has a defective valve, or a leaking or defective pressure relief device, or bears evidence of physical abuse, fire or heat damage, or detrimental rusting or corrosion, shall not be used, filled, or offered for transportation.

1.114 Air Receivers

All air receivers shall be equipped with a readily visible indicating pressure gauge that is equipped with one or more spring-loaded safety valves.

The total relieving capacity of these safety valves should be such as to prevent pressure in the receiver from exceeding the maximum allowable working pressure of the receiver by more than 10%.

The drain valve on air receivers shall be opened and the receiver completely drained frequently and at such intervals as to prevent the accumulation of excessive amounts of liquid in the receiver.



<p style="text-align: center;">VRG Controls LLC Compressed Air Safety Program</p>

1.115 Training

Employees handling compressed air shall be adequately trained in the inherent hazards as well as proper handling, storage, and use.



VRG Controls LLC
Cranes Program – Overhead, Gantry, and Rigging

11. CRANES PROGRAM – OVERHEAD, GANTRY, AND RIGGING

1.116 Purpose and Scope

The purpose of this program is to ensure a safe working environment when work is performed using overhead cranes and gantry cranes in addition to rigging safety.

This program applies to all VRG Controls LLC employees who work with or near overhead cranes and gantry cranes.

1.117 Resources

Number	Title
29 CFR 1926 Subpart CC	Cranes and Derricks in Construction
29 CFR 1926 Subpart C	General Safety and Health Provisions
29 CFR 1910 Subpart N	Materials Handling and Storage - Overhead and Gantry Cranes
CMS-PR-0105	Signaling for Cranes

1.118 Overhead Cranes, Gantry Cranes, and Rigging Program

Overhead cranes and gantry cranes are cranes with a movable bridge carrying a movable or fixed hoisting mechanism and traveling on an overhead fixed runway structure.

Preventing incidents from the use of overhead cranes and gantry cranes requires employees to recognize the hazards involved.

1.119 Employee Competency

Only those employees qualified and deemed competent through training may be the designated signal person and maintenance and repair employees.

1.120 Training

1.120.1 Operator Training

Only trained operators designated as competent are authorized to operate overhead cranes and gantry cranes.

Any of the following methods may be used to ensure operators are qualified:

- Certification by an accredited crane operator testing organization.
- Qualification by an audited Company program.



VRG Controls LLC Cranes Program – Overhead, Gantry, and Rigging
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- Qualification by the US military.
- Licensing by a government entity.

Refresher training is required according to the certification body.

Operator training shall include:

- Capacities of equipment and attachments.
- Purpose, use, and limitation of controls.
- How to conduct daily checks.
- The energizing sequences, including pneumatic, hydraulic, and electrical sequences.
- Start up and shut down procedures.
- Emergency shut down procedures.
- General operating procedures.
- All basic signaling procedures, including hand, radio, or telephone signals, where required.
- The requirements of 29 CFR 1910.179 (Overhead and Gantry Cranes) and other applicable OSHA standards.
- Practice in operating the assigned equipment through the mechanical functions necessary to perform the required tasks.
- Maximum rated capacity of the crane.
- Company rules and requirements.

1.120.2 Rigger Training

Only employees trained as riggers are authorized to work with rigging equipment.

Rigger training shall include:

- The requirements of 29 CFR 1910.179 (Overhead and Gantry Cranes) and other applicable OSHA standards.
- The requirements of OSHA slings standards.
- The requirements of OSHA personal protective equipment (PPE) standards.
- Maximum capacity of the crane.
- Rigging procedures.
- Company rules and requirements.



<p>VRG Controls LLC</p> <p>Cranes Program – Overhead, Gantry, and Rigging</p>

1.120.3 Assembly / Disassembly

Equipment shall not be assembled or used unless ground conditions are firm, drained, and graded to a sufficient extent so that, in conjunction (if necessary) with the use of supporting materials, the equipment manufacturer's specifications for adequate support and degree of level of the equipment are met.

The manufacturer's procedures and prohibitions shall be complied with when assembling and disassembling equipment.

Assembly / disassembly shall be directed by an individual who qualifies as both a competent person and a qualified person, or by a competent person who is assisted by one or more qualified persons. The competent person is referred to as the A/D director. The A/D director shall understand the applicable assembly / disassembly procedures. The A/D director shall review the applicable assembly / disassembly procedures immediately prior to the commencement of assembly / disassembly unless the A/D director understands the procedures and has applied them to the same type and configuration of equipment.

The A/D director is responsible for ensuring crew members are knowledgeable of their tasks prior to commencing work.

Prior to starting work, the A/D director is responsible for ensuring crew members are knowledgeable of the hazards associated with their tasks.

The A/D director is responsible for ensuring crew members are knowledgeable before commencing work of the hazardous positions/locations they need to avoid.

The A/D director shall be responsible for managing specific hazards associated with assembly/disassembly operations. These include the following hazards:

- Site and ground bearing conditions
- Blocking material
- Proper location of blocking
- Verifying assist crane loads
- Boom and jib pick points
- Center of gravity
- Stability upon pin removal
- Snagging
- Struck by counterweights



VRG Controls LLC Cranes Program – Overhead, Gantry, and Rigging
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- Boom hoist brake failure
- Loss of backward stability
- Wind speed and weather

1.121 Rated Load

The crane shall not be loaded beyond its rated load except for test purposes.

The rated load of the crane shall be clearly marked on each side of the crane.

If the crane has more than one hoisting unit, each hoist shall have its rated load marked on it or its load block. This marking shall be clearly legible from the ground or floor.

The rated load marking on a hoist shall be located and arranged so that it is evident to the personnel responsible for the safe operation of the hoisting unit.

Written reports shall be made and maintained on rated load tests showing the test procedures and confirming the adequacy of any repairs or alterations.

1.122 Inspections

1.122.1 Daily Inspections

A competent person shall conduct a visual inspection of equipment for apparent deficiencies prior to each shift.

The inspection shall include all functional mechanisms for maladjustment interfering with proper operation including:

- | | |
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| <ul style="list-style-type: none">• Pre-erection inspections• Control mechanisms• Pressurized lines• Hooks and latches• Hoist chains• Wire rope | <ul style="list-style-type: none">• Electrical apparatus• Tires (when used)• Ground conditions• Deterioration or leakage in lines, tanks, valves, drain pumps, and other parts of air or hydraulic systems. |
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<p>VRG Controls LLC Cranes Program – Overhead, Gantry, and Rigging</p>
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1.122.2 Monthly Inspections

A monthly inspection shall be conducted by the designated competent person.

Monthly inspections shall be recorded and maintained on critical items in use such as brakes, crane hooks, ropes, hoist chains and end connections, etc. Hooks with deformations or cracks shall have a visual inspection daily and a monthly inspection with a certification record.

Hoist chains, including end connections shall be inspected for excessive wear, twist, distorted links interfering with proper function, or stretch beyond manufacturer's recommendations and must have a visual inspection daily and monthly inspection with a certification record.

Rope inspection shall be recorded and maintained monthly on rope reeving for noncompliance with manufacturer's recommendations.

Any deterioration, resulting in appreciable loss of original strength, shall be carefully observed and determination made as to whether further use of the rope would constitute a safety hazard.

Wire ropes on equipment shall not be used until an inspection demonstrates that no corrective action is required.

All rope which has been idle for a period of a month or more due to shut down or storage of a crane on which it is installed shall be given a thorough inspection before use.

Rope inspection shall be for all types of deterioration and shall be performed by an appointed or authorized person whose approval is required for further use of the rope.

Certification records shall be kept on file where readily available to appointed personnel.

Certification records shall include:

- Items checked,
- Results of inspection,
- Date of inspection,
- Name and signature of the person performing inspection, and
- The serial number or other identifier of item inspected.

Inspection records and preventative maintenance record documentation shall be maintained and retained for a minimum of 3 months.



<p>VRG Controls LLC Cranes Program – Overhead, Gantry, and Rigging</p>
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1.122.3 Periodic Inspections

Periodic inspections shall include:

- Deformed, cracked, or corroded members
- Loose bolts or rivets
- Cracked or worn sheaves and drums
- Worn parts and excessive wear items

1.122.4 Post Assembly Inspection

The post assembly inspection shall ensure the selection of components, and the configuration of equipment that affect the safe operation of the crane are in accordance with manufacturer instructions, prohibitions, limitations, and specifications.

1.123 Safe Work Practices

Prior to initial use, all new and altered cranes shall be tested for compliance.

Erect and maintain control lines, warning lines, railings, or similar barriers to mark the boundaries of the hazard areas within the crane's swing radius.

There shall be no sudden acceleration or deceleration of the moving load and the load shall not contact any obstructions. Cranes shall not be used for side pulls except when specifically authorized by a responsible person. No hoisting / lowering / traveling while an employee is on the load or hook. The operator shall avoid carrying loads over people. Loads shall not be lowered where there are less than two full wraps of rope on the hoisting drum. The operator shall not leave their position at the controls while the load is suspended.

1.123.1 Fire Extinguishers

A CO₂ or dry chemical fire extinguisher shall be stored in the crane cab or vicinity of the crane.



<p style="text-align: center;">VRG Controls LLC Cranes Program – Overhead, Gantry, and Rigging</p>
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1.123.2 Working Near Equipment / Power Lines

Electrical equipment shall be located or enclosed so that live parts will not be exposed to accidental contact under normal operating conditions.

Determine if any part of the equipment, load line, or load (including rigging and lifting accessories), if operated up to the equipment's maximum working radius in the work zone, could get closer than 20 feet to a power line. If so, one of the following options shall be performed:

- a) Deenergize and ground. Confirm from the utility owner / operator that the power line has been deenergized and visibly grounded at the worksite.
- b) Ensure 20-foot clearance. Ensure that no part of the equipment, load line, or load gets closer than 20 feet to the power line.
- c) Determine the line's voltage and the minimum approach distance permitted. Determine if any part of the equipment, load line, or load, while operating up to the equipment's maximum working radius in the work zone, could get closer than the minimum approach distance of the power line permitted. If so, then ensure that no part of the equipment, load line, or load (including rigging and lifting accessories), gets closer to the line than the minimum approach distance.

1.123.3 Critical and Engineered Lifts

Critical and/or engineered lifts must follow jurisdictional permitting requirements.

1.124 Preventative Maintenance

A preventive maintenance program based upon the crane manufacturer's recommendations shall be established.

Before repair begins, equipment shall be locked and tagged with "Out of Order" signs positioned on or near the equipment visible from the ground.

1.125 Slings

Safety practices for sling use shall be observed.

Each day before being used, slings, fastenings, and all attachments shall be inspected for damage or defects by a competent person.

Additional inspections shall be performed during sling use, where service conditions warrant.



<p style="text-align: center;">VRG Controls LLC Cranes Program – Overhead, Gantry, and Rigging</p>
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Damaged or defective slings shall be immediately removed from service.

1.125.1 Proper Care and Use

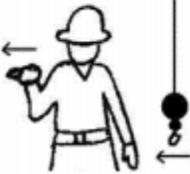
- Slings shall be protected with cover saddles, burlap padding, or wood blocking as well as from unsafe lifting procedures such as overloading to prevent sharp bends and cutting edges.
- Before making a lift, check to be certain that the sling is properly secured around the load and that the weight and balance of the load have been accurately determined.
- If the load is on the ground, do not allow the load to drag along the ground; this could damage the sling. If the load is already resting on the sling, ensure that there is no sling damage prior to making the lift.
- Position the hook directly over the load and seat the sling squarely within the hook bowl. This gives the operator maximum lifting efficiency without bending the hook or overstressing the sling.
- Wire rope slings are subject to damage resulting from contact with sharp edges of the loads being lifted. These edges can be blocked or padded to minimize damage to the sling.
- Never allow more than one person to control a lift or give signals to a crane or hoist operator except to warn of a hazardous situation.
- Never raise the load more than necessary.
- Never leave the load suspended in the air.
- Never work under a suspended load or allow anyone else to work under a suspended load.
- Once the lift has been completed, clean the sling, check it for damage, and store it in a clean, dry, airy place. It is best to hang it on a rack or wall.
- Damaged slings cannot lift as much weight as new or older well-cared for slings. Proper and safe use and storage of slings will increase their service life.



VRG Controls LLC
Cranes Program – Overhead, Gantry, and Rigging

Appendix 1 Hand Signals

VRG Controls LLC
Cranes Program – Overhead, Gantry, and Rigging

 <p>LOWER THE BOOM AND RAISE THE LOAD – With arm extended horizontally to the side and thumb pointing down, fingers open and close while load movement is desired.</p>	 <p>MOVE SLOWLY – A hand is placed in front of the hand that is giving the action signal.</p>	 <p>USE AUXILIARY HOIST (whipline) – With arm bent at elbow and forearm vertical, elbow is tapped with other hand. Then regular signal is used to indicate desired action.</p>
 <p>CRAWLER CRANE TRAVEL, BOTH TRACKS – Rotate fists around each other in front of body; direction of rotation away from body indicates travel forward; rotation towards body indicates travel backward.</p>	 <p>USE MAIN HOIST – A hand taps on top of the head. Then regular signal is given to indicate desired action.</p>	 <p>CRAWLER CRANE TRAVEL, ONE TRACK – Indicate track to be locked by raising fist on that side. Rotate other fist in front of body in direction that other track is to travel.</p>
 <p>TROLLEY TRAVEL – With palm up, fingers closed and thumb pointing in direction of motion, hand is jerked horizontally in direction trolley is to travel.</p>	<p>fingers closed. outward with other fingers closed. back to make a pushing motion in the direction of travel.</p>	



VRG Controls LLC Cutting Tool Program
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12. CUTTING TOOL PROGRAM

1.126 Purpose and Scope

The purpose of this program is to provide information on the alternatives to and expectations for using exposed open blades.

This program applies to all VRG Controls LLC employees that use cutting tools.

1.127 Cutting Tool Program

The Company is dedicated to providing a safe and healthful workplace by ensuring all employees use equipment in the manner that it was designed to prevent potential injury.

The use of folding knives, including pocketknives and homemade knives, in the workplace is prohibited. This includes locking folding knives and multi-tool devices with folding or retractable blades. Employees must use alternative safe cutting devices rather than exposed blade cutting tools when possible.

1.128 Requirements for All Cutting Tools

Knives must have a fixed handle, sharp on one side only, with a handle that is not prone to becoming slippery when wet or dirty.

Cutting instruments must be kept clean and free from grease or other lubricating substances that may cause the user to lose their grip.

Cutting edges should be kept sharp, as appropriate, and the tool be kept in good working order to avoid any undue pressure being applied when utilizing the tool.

Defective cutting instruments and knives must be taken out of service and either repaired or destroyed.

Any cutting tool that is dropped must be allowed to fall rather than attempting to catch it.

Cutting tools must not be used for any other purpose (e.g., prying, hammering, driving, removing screws, etc.).



<p style="text-align: center;">VRG Controls LLC Cutting Tool Program</p>
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1.129 Requirements for Exposed Blade Cutting Tools

Exposed blade cutting tools should only be used when a suitable alternative tool is not available to perform the task. The following minimum requirements for safe operation must be met:

- Fixed knives with exposed blades must be kept in a device such as a sheath that covers the cutting blade or otherwise protected when not in use.
- Fixed knives with exposed blades must have a handle guard to keep the hand separated from the cutting edge.
- Exposed blades must not be carried from one location to another unless they are sheathed or otherwise protected. When carrying, the tool must be pointed down and away from the body.
- Employees using an exposed blade must wear a cutting glove on the free hand.
- Cutting made with an exposed blade must be made away from the body. If cutting cannot be done away from the body, barriers such as a leather apron must be worn to protect the user from the exposed blade.
- When utilizing an exposed blade cutting tool, the user must ensure that a “safety circle” is maintained at all times when the blade is exposed. This means that all other personnel are far enough away that the full extension of the blade users arm in any direction cannot contact another person.
- Disposable razor type blades must be placed in a puncture resistant container or otherwise appropriately packaged for disposal before placing into the trash.

**VRG Controls LLC
Cutting Tool Program**

Appendix 2 Alternative Cutting Tools

	<p>Utility Cutters: Cutters feature an offset pivot design, a replaceable super-sharp stainless-steel blade, an ergonomic handle design with vinyl grips and a handle latch for protective storage.</p>
	<p>Strap and/or Box Cutter Knife: A guarded fixed position blade cutter designed for cutting tape, stretch film, straps, etc.</p>
	<p>Diagonal Cutter: Diagonal pliers, side cutter, wire cutters, diagonal cutting pliers, or dikes are wire-cutting pliers.</p>
	<p>Retractable Utility Knife: Utility knife with an automatic retracting blade or automatic safety hood that snaps, and locks as soon as contact is lost with the cutting surface.</p>

**VRG Controls LLC
Cutting Tool Program**

Appendix 3 Examples of Personal Protective Equipment

	<p>Cutting Gloves: Cut-resistant gloves provide cut, slash, and abrasion resistance. Use alone or with another glove as a liner. They are usually made of Kevlar mesh or may be any other material designed and designated for cut resistance.</p>
	<p>Cut Resistance Sleeve: Sleeves provide cut protection for forearms. Gauntlet length gloves also provide extended coverage to the forearm, as the cut is extended up the arm. The material may be Kevlar, leather, or other material designed and designated for cut resistance.</p>
	<p>Apron: An outer protective garment that covers primarily the front of the body. The material may be Kevlar, leather, or other material designed and designated for cut resistance.</p>
	<p>Chaps: Sturdy coverings for the legs, usually of leather, consisting of leggings and a belt. They are buckled on over pants with the chaps integrated belt, but they have to seat and are not joined at the crotch. They are designed to provide protection for the legs. They are usually made of leather or Kevlar.</p>



VRG Controls LLC Disciplinary Program
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13. DISCIPLINARY PROGRAM

1.130 Purpose and Scope

The purpose of this program is to establish the minimum requirements to ensure proper action is taken when an employee violates written procedures and other known safety policies or goals.

This program applies to all VRG Controls LLC employees.

1.131 Resources

Number	Title
29 CFR 1926 Subpart C	General Safety and Health Provisions
CMS-FM-0021	Safety Violation Form

1.132 Disciplinary Program

It is Company policy to provide a safe and healthy place of employment. A vital part of any program is employee participation and commitment to the safety program. In order to ensure compliance with established, communicated safety procedures, employee violations of those safety procedures shall be dealt with according to this program.

1.133 Roles and Responsibilities

The Safety Coordinator is responsible for enforcement of this disciplinary program.

All employees are responsible for following Company safety policies, procedures, and safe work practices.

1.134 Safety Violations

Safety violations include but are not limited to:

- Not following verbal or written safety policies, procedures, or safe work practices
- Not following guidelines or rules
- Horseplay
- Failure to wear or abuse of selected personal protective equipment (PPE)
- Substance abuse

1.135 Disciplinary Action



<p style="text-align: center;">VRG Controls LLC Disciplinary Program</p>

If a safety violation is issued, employees are subject to:

- 1) Verbal reprimand
- 2) Written warning if the issue continues
- 3) Suspension without pay and/or termination



VRG Controls LLC Disciplinary Program
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Appendix 4 Safety Violation Form

General Information			
Employee Name:		Employee No.:	
Date of Violation:		Time of Violation:	
Location:			
Violation Description			
Disciplinary Action			
Employee Statement			
Signatures			
I, _____, have read/been read and understand the safety rules of this company. I agree to act in accordance with the safety rules and understand that the violation of any rule is cause for disciplinary action, up to and including termination of employment.			
Employee Signature:		Date:	
Supervisor Signature:		Date:	



VRG Controls LLC Distracted Driving Program
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14. DISTRACTED DRIVING PROGRAM

1.136 Purpose and Scope

The purpose of this program is to provide information on the hazards of distracted driving and to reduce the risk of accidents caused by distracted driving.

This program applies to all VRG Controls LLC employees.

1.137 Distracted Driving

Every day in the United States, approximately nine people are killed and more than 1,000 are injured in crashes that involve a distracted driver.

Distracted driving occurs any time you take your eyes off the road, hands off the wheel, and mind off your primary task—driving safely.

Any non-driving activity you engage in is a potential distraction and increases your risk of being involved in a motor vehicle crash.

Distracted drivers are more likely than all other drivers to:

- Have a near collision
- Fail to stop at an intersection
- Exceed the speed limit

Employees in many industries and occupations spend part of their workdays on the road. Motor vehicle crashes are the leading cause of work-related deaths in the US.

All employees are at risk of crashes, whether they drive light or heavy vehicles or driving is a main or secondary job.

1.138 Types of Distraction

There are three main types of distraction:

- Visual
- Manual
- Cognitive



VRG Controls LLC Distracted Driving Program
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Visual distractions are anything that take your eyes off the road in front of you, including:

- Reading a text message
- Looking up directions
- “Rubbernecking”

Manual distractions are anything that requires you to take your hands off the wheel, including:

- Reaching for things inside the vehicle
- Using a handheld device
- Adjusting the radio or music apps
- Eating or drinking
- Applying makeup

Cognitive distractions are anything that interrupts your focus on driving, and can include:

- Talking on the phone
- Arguing with a passenger
- Thinking about your destination

1.139 Prevention

Take these steps to prevent distracted driving:

- Make necessary adjustments to your car, such as adjusting controls or programming your directions, before starting your drive.
- Do not reach to pick up items from the floor, open the glove box, or try to catch falling objects in the vehicle.
- Focus on the driving environment—the vehicles around you, pedestrians, cyclists, and objects or events that may mean you need to act quickly to control or stop your vehicle.

1.139.1 Phone Usage

Talking and texting on a cell phone are driving distractions. Texting is one of the most serious distractions.



<p style="text-align: center;">VRG Controls LLC Distracted Driving Program</p>
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Texting while driving can be a visual, manual, and cognitive distraction all at once. Your eyes are off the road reading your phone, your hand is off the wheel holding your phone, and your mind is off the road and focused on your phone.

Sending or reading a text takes your eyes off the road for 5 seconds. At 55 miles per hour, that is the equivalent of driving the length of a football field with your eyes closed.

Hands-free phones are not necessarily safer than hand-held devices.

Drivers using handheld or hands-free cell phones are four times as likely to crash. The National Safety Council (NSC) estimates that cell phone use alone accounts for 27% of vehicular crashes.

1.139.2 Restrictions

The following restrictions are in place to prevent distracted driving:

- Handheld phone use, including calling, texting, email, etc., while driving a company vehicle is prohibited.
- The use of a company-issued phone while driving a personal vehicle is prohibited.
- Hands-free phone use while driving a company vehicle is prohibited.
- Employees shall pull over in a safe location if they must text, make a call, send an email, or look up directions.



VRG Controls LLC Driving Safety Program – PG&E Requirements
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15. DRIVING SAFETY PROGRAM – PG&E REQUIREMENTS

1.140 Purpose and Scope

The purpose of this program is to protect employees, reduce the frequency and severity of accidents involving motor vehicles, and prevent environmental damage.

This program applies to all VRG Controls LLC employees.

1.141 Driving Safety Program

Motor vehicle accidents are recognized as a leading cause of work and non-work-related serious injuries and fatalities. Therefore, the operation of motor vehicles must not be perceived as a routine activity. Successful implementation of the following elements will result in fewer driving related incidents, injuries, and fatalities.

1.142 Driving Safety Policy

The driving safety policy affirms the company's commitment to the health and well-being of drivers throughout the company (both coworkers and subcontractors). The policy establishes the expectation that drivers comply with all aspects of the company's vehicle safety program, as well as obey applicable local, state, and federal laws and regulations as they relate to vehicle operations. A coworkers' primary responsibility while driving is the safe operation of the vehicle.

1.143 Roles and Responsibilities

Senior leadership is committed to allocating sufficient time and resources required to manage and support the overall driving safety program.

Drivers are responsible for possessing a valid driver's license for the type of motor vehicle they operate. Training in the safe operation of motor vehicles will be provided to all employees who drive company vehicles.

Employees driving, along with their passengers, are responsible for ensuring seat belts are worn while the vehicle is in operation. Seat belt use is mandatory.

Drivers shall obey all traffic laws including possessing a valid driver's license, speed limits, signaling when changing lanes, obeying traffic lights, etc.

Drivers shall avoid distractions, such as adjusting the radio or other controls, eating, or drinking, and using the phone. Drivers shall not drive with illegal drugs, including carrying or smoking marijuana, in the vehicle. Drivers shall be monitored by the use of GPS and onboard camera system at all times while on duty.



VRG Controls LLC Driving Safety Program – PG&E Requirements
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Driver's must complete training on avoiding the "Big 3 Crashes" which are intersections, lane changes/merges, and rear-end collisions.

1.144 Driver Eligibility Requirements

The following is used to select drivers to ensure safe operation and management of motor vehicles operated on the company's behalf.

The following requirements are applicable to all drivers:

- Must be at least 23 years of age, and no more than 65 years of age pending annual health certification in accordance with USDOT.
- Must have at least one year of verifiable driving experience in type of vehicle to be operated.
- Must have no major violations within the past 36 months.

Employees with the following are not acceptable to drive:

- More than one minor violation within the past 12 months.
- More than two minor violations within the past 24 months.
- More than three minor violations within the past 36 months.

1.145 Disciplinary Policy

Only qualified and reliable employees with safe driving records are permitted to drive company vehicles.

If adverse driving behavior, such as accident involvement, repeated violations of traffic laws, or poor vehicle condition and maintenance is experienced, drivers will be subject to this progressive disciplinary procedure. The following are minimum guidelines for appropriate, graduated driver discipline for accidents occurring in company vehicles:

- One preventable accident in one year: Written Warning, 1-day post-accident retraining at with pay.
- Two preventable accidents within one year: Written Warning, 1-day post-accident retraining at with pay, and subject to transfer to a non-driving assignment, or termination of employment.
- Three preventable accidents within one year: Termination of employment.
- Two preventable accidents within two years: Written Warning, 1-day post-accident retraining with pay.



VRG Controls LLC Driving Safety Program – PG&E Requirements
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- Three preventable accidents within three years: Transfer to non-driving job or termination of employment.

1.146 Orientation and Training

All drivers must complete the company orientation and training prior to operating a motor vehicle on behalf of the company.

Orientation and training addresses:

- Driver Proficiency (on all applicable vehicles and vehicle combinations)
Prior to the start of any driving activity, drivers must complete a competency assessment in the applicable vehicle and vehicle combinations.
- Downhill Driving Safety (downshifting, transmission brake use, brake fade prevention)
This includes the use of the engine and transmission to slow the vehicle down instead of the brakes. Shift to a lower gear before heading downhill, as this will help slow down the vehicle without having to ride the brakes.
- Pavement Edge Drop-Off Awareness (how to return to the road safely)
Steps for returning to the road including continuing to look ahead, carefully steering over, easing off the gas pedal, slowing down, getting off the road if possible, and returning to the road when it is safe.
- Rollover Prevention (how to prevent vehicle rollovers)
Ways to prevent a rollover include:
 - Obey the speed limits and take it slow around corners.
 - Stay alert. Turning up the radio or rolling down your windows are not effective ways to keep you alert. There are regulations in place to prevent fatigue-related accidents.
 - Put down your cellphone. It is both illegal and extremely dangerous to text while driving.
 - Ensure the vehicle is mechanically sound before the trip.
 - Understand the design and performance of the type of vehicle you will be driving. For example, tankers handle differently than reefers or flatbeds.
 - Always make sure loads are tied down properly. Shifting loads can easily lead to a rollover.
- Backing and Close Quarter Maneuvering:
When backing on PG&E projects, a spotter is required.



VRG Controls LLC Driving Safety Program – PG&E Requirements
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Whenever possible and safe to do so, employees are to pull through or back into parking stalls. The area around the vehicle is inspected immediately prior to moving the vehicle (e.g., Circle of Safety) to ensure that chocks or other devices and equipment have been put back on the vehicle and that no hazards exist that may impact the employees or the vehicle. Before backing a vehicle, drivers must request a passenger or other nearby Company employee, if available, to observe during the backing of the vehicle. Vehicles equipped with back-up cameras are to use the camera as a tool in addition to rear/side mirrors and observers when available.

- **Client Specific Training**
Client specific training may include site specific safe work practices, safety meeting frequency requirements, job specific qualification and training requirements, reporting requirements, etc.
- **Handling Roadside Emergencies**
Emergency services should always be called first (if necessary). Steps include ensuring the proper tools are available (flashlight, first aid kit, etc.), getting off the road, making sure the vehicle is visible to others, exercising caution, and calling for assistance.

1.147 Before Movement of Vehicle

Prior to use of any motor vehicle on Company business, a pre-trip vehicle inspection must be conducted.

The operator should walk around the vehicle's exterior and look for potential safety hazards such as cracked windshields, missing mirrors, defective tires, and other vehicle body damage or defects. For Company vehicles and rental vehicles, exterior and/or interior defects should be reported to the responsible manager.

Operators should familiarize themselves with interior features and controls and make appropriate adjustments, e.g., seat, mirrors, necessary to assure safe operation.

1.148 Safe Towing, Trailer Parking, and Securing

Whether pulling a light-weight trailer for the first time or if towing one is part of an employee's daily routine, it is important to prepare before hitting the road. Always follow these precautions:

- **Choose the proper towing equipment**
Check the vehicle's weight capacity in the owner's manual to ensure it can handle the trailer and cargo load. Choose a size of hitch, coupler, and components that provide a secure fit. Each vehicle may require different equipment to tow safely and legally. According to Consumer Reports, incorrectly sized hitch balls are the number one cause of trailer accidents.



<p>VRG Controls LLC Driving Safety Program – PG&E Requirements</p>
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- **Check the tires**
Check the tire pressure on both the towing vehicle and the trailer. The vehicle's tires may require a higher pressure while towing, as outlined in the owner's manual. Inspect the trailer tires for dry rot and cracking, especially if it is stored outdoors. Even if the tires have plenty of tread, age can lead to tire failure. Always check the lug nuts to ensure they are tight.
- **Be prepared for roadside emergencies**
Ensure there is at least one spare tire for the trailer. Keep a jack and a lug nut wrench that works properly with the trailer and its wheels. Keep the trailer's wheel bearings greased and check the brakes (if equipped). Towing can put extra stress on a vehicle, so ensure the towing vehicle's maintenance is up to date.
- **Hitch up the trailer correctly**
Make sure the following proper procedures for hooking up the trailer are used before towing:
 - Line up the vehicle. With the help of a coworker or camera, back the vehicle straight toward the trailer.
 - Raise the coupler. When the vehicle is about a foot away from the trailer tongue, stop and adjust the trailer coupler height to clear the trailer ball.
 - Align the ball and coupler. Back the vehicle the rest of the way so the coupler lines up perfectly above the trailer ball.
 - Lower the coupler onto the ball. With the vehicle in park and the emergency brake engaged, use the trailer jack to lower the unlocked coupler until it rests on the ball.
 - Latch the coupler. Once the coupler is fully seated on the ball, engage the latch, and secure it with a hitch pin or coupler lock.
 - Attach the safety chains in a crisscross pattern. This is required by law. Ensure the safety chains are rated to meet the gross trailer weight.
 - Retract or swivel the trailer jack. Move it out of the way for towing.
 - Plug in the trailer wiring. Ensure the harness does not touch the ground but has enough length to make turns without tension.
 - Check the trailer lights. With a helper or mirrors, ensure the turning lights, running lights, and brake lights are functional.



<p style="text-align: center;">VRG Controls LLC Driving Safety Program – PG&E Requirements</p>
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- Use wheel chocks. Before unhooking the trailer from the tow vehicle, place chocks (sturdy, wedge-shaped blocks) in front of and behind the trailer's tires. This keeps the trailer from rolling away when it is released from the tow vehicle.

1.148.1 Driving Tips

Extra caution on the road is needed when towing a trailer. These tips can help prevent accidents.

- Allow plenty of stopping distance.
One of the reasons people get into accidents is because they tailgate. It takes longer to stop with a trailer than with a vehicle alone. Allowing for extra stopping distance helps prevent collisions. It also prolongs the life of the towing vehicle when sudden accelerations, braking, and maneuvers are avoided.
- Anticipate problems ahead.
Since it takes longer to stop when towing a trailer, scan ahead farther than usual. Look for problems developing down the road. Observe the traffic flow and be ready to react if needed.
- Watch for trailer sway.
Crosswinds, large trucks, downhill grades, and high speeds can lead to the trailer swinging back and forth like a pendulum behind the towing vehicle. If this occurs, the driver should remove their foot from the gas and gently apply the trailer brakes until the swaying stops.
- Swing out when making turns.
The amount of space needed to make a turn when towing a trailer is increased. Account for this extra space by swinging out farther when taking a turn. Watch out for curbs, corners, and other cars.
- Use care when changing lanes.
When changing lanes with a trailer, blind spots increase, and it is more difficult to accelerate quickly. Make sure to leave plenty of space between the trailer and other vehicles when moving from one lane to another. Consider installing tow mirrors to increase visibility.
- Use a spotter when backing.
When backing on PG&E projects, a spotter is required.
Have a helper assist the driver in looking for blind spots and providing directions when backing a trailer. While reversing, the driver must turn the wheel in the opposite direction from where they want to go. This can be challenging and confusing. However, these steps can help:



VRG Controls LLC Driving Safety Program – PG&E Requirements
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- Hold the bottom of the steering wheel.
- To turn left, move the steering wheel to the left.
- To turn right, move the steering wheel to the right.
- Do not pull into a place if there is no way out.
It is easy to get stuck or blocked in with a trailer. Avoid pulling into a small parking lot that requires complicated backup maneuvers to leave. Leave plenty of space when parking so a complete turnaround can be made when exiting. Choosing a parking spot that is farther away may be a better option.
- Use a parking brake and chock the trailer's wheels.
Once the trailer is in its desired position, set the towing vehicle's parking brake and chock the trailer's wheels. Avoid parking on hills.

1.149 Safe Parking and Securing of Motor Vehicles

Employees are required to abide by the following:

- Except during loading or unloading, cargo doors on trailers and straight trucks shall be locked with a padlock or other approved locking device.
- Doors on company vehicles shall be locked when not attended.
- At the beginning of each shift, inform a supervisor if the cab of the assigned truck is found unlocked or if the cargo door is not secured by a padlock or other approved locking device.
- At the end of each shift, ensure that the assigned vehicle is properly secured by locking all doors.

If an employee is found to be in non-compliance with locking vehicles, the following will apply:

- Employee will be suspended for 5 days without pay.

If loss due to theft or vandalism occurs because of non-compliance the employee will face disciplinary action up to and including termination of employment.

1.150 Seatbelt Use

Use of seatbelts by drivers and all occupants of the vehicle is mandatory. Studies have shown that injuries are reduced or completely avoided when seatbelts are worn.



<p>VRG Controls LLC Driving Safety Program – PG&E Requirements</p>
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1.151 High-Risk Driving Behaviors

When it is determined that an employee has engaged in risk associated behavior, management must take corrective action for the safety of all employees and the public.

Corrective actions must be uniform for violations resulting in collisions, injury, or illness and those in which no collision, injury, or illness occurred. The primary purpose of the corrective action is to prevent future occurrences of risk associated behaviors and is not to penalize the employee for having a collision or injury.

High-risk driving behaviors include but are not limited to:

- Speeding
- Road-rage
- Traffic law violations
- Impaired driving
- Distracted driving

1.152 Distracted Driving

Every day in the United States, approximately nine people are killed and more than 1,000 are injured in crashes that involve a distracted driver.

Distracted driving occurs any time you take your eyes off the road, hands off the wheel, and mind off your primary task—driving safely.

Any non-driving activity you engage in is a potential distraction and increases your risk of being involved in a motor vehicle crash.

Distracted drivers are more likely than all other drivers to:

- Have a near collision
- Fail to stop at an intersection
- Exceed the speed limit

Employees in many industries and occupations spend part of their workdays on the road. Motor vehicle crashes are the leading cause of work-related deaths in the US.

All employees are at risk of crashes, whether they drive light or heavy vehicles or driving is a main or secondary job.



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1.152.1 Types of Distraction

There are three main types of distraction:

- Visual
- Manual
- Cognitive

Visual distractions are anything that take your eyes off the road in front of you, including:

- Reading a text message
- Looking up directions
- “Rubbernecking”

Manual distractions are anything that requires you to take your hands off the wheel, including:

- Reaching for things inside the vehicle
- Using a handheld device
- Adjusting the radio or music apps
- Eating or drinking
- Applying makeup

Cognitive distractions are anything that interrupts your focus on driving, and can include:

- Talking on the phone
- Arguing with a passenger
- Thinking about your destination

1.152.2 Prevention

Take these steps to prevent distracted driving:

- Make necessary adjustments to your car, such as adjusting controls or programming your directions, before starting your drive.
- Do not reach to pick up items from the floor, open the glove box, or try to catch falling objects in the vehicle.



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- Focus on the driving environment—the vehicles around you, pedestrians, cyclists, and objects or events that may mean you need to act quickly to control or stop your vehicle.

1.152.3 Phone Usage

Talking and texting on a cell phone are driving distractions. Texting is one of the most serious distractions.

Texting while driving can be a visual, manual, and cognitive distraction all at once. Your eyes are off the road reading your phone, your hand is off the wheel holding your phone, and your mind is off the road and focused on your phone.

Sending or reading a text takes your eyes off the road for 5 seconds. At 55 miles per hour, that is the equivalent of driving the length of a football field with your eyes closed.

Hands-free phones are not necessarily safer than hand-held devices.

Drivers using handheld or hands-free cell phones are four times as likely to crash. The National Safety Council (NSC) estimates that cell phone use alone accounts for 27% of vehicular crashes.

1.152.4 Restrictions

The following restrictions are in place to prevent distracted driving:

- Handheld phone use, including calling, texting, email, etc., while driving a company vehicle is prohibited.
- The use of a company-issued phone while driving a personal vehicle is prohibited.
- Hands-free phone use while driving a company vehicle is prohibited.
- Employees shall pull over in a safe location if they must text, make a call, send an email, or look up directions.

1.153 Preventing Rollovers

Since a large majority of rollovers are caused by driver error, most crashes are preventable.

The appropriate vehicle / equipment must be selected for the task that will be accomplished. Consider the size of the vehicle vs. the space allowed by roadways, task / scope of work, terrain, route, and topography of the jobsite when selecting a vehicle and/or trailer.

Here are several ways to prevent a rollover:

- Obey the speed limits and take it slow around corners.



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- Stay alert. Turning up the radio or rolling down your windows are not effective ways to keep you alert. There are regulations in place to prevent fatigue-related accidents.
- Put down your cellphone. It is both illegal and extremely dangerous to text while driving.
- Ensure the vehicle is mechanically sound before the trip.
- Understand the design and performance of the type of vehicle you will be driving. For example, tankers handle differently than reefers or flatbeds.
- Always make sure loads are tied down properly. Shifting loads can easily lead to a rollover.

Many of the factors that can cause a rollover crash are entirely under the driver's control. Always remember, deadlines are important, but safety is the number one priority.

1.154 Preventing Accidents at Intersections

The most important aspect to keep in mind is that your safety depends on you. Never assume a driver will perform an action, because if you do, you put your life in their hands. Other ways you may prevent a crash from occurring include:

- Look both ways before going through the intersection. Running red lights is the leading cause of intersection accidents.
- Do not race a yellow light and never assume you are safe driving through an intersection when the light is yellow.
- Do not enter an intersection if the traffic is backed up on the other side. You may be stuck in the middle when the light changes and other drivers are attempting to cross.
- Look for cars crossing in front of you at an intersection. Those drivers may have a green arrow and will cross ahead of you.
- Never change lanes when passing through an intersection; wait until you are through.
- Stop behind the paved line at the intersection. Going out too far could result in a collision.

1.155 Preventing Accidents While Changing Lanes or Merging

Lane change accidents account for a large number of accidents on the roadways.

Changing lanes – A driver driving straight ahead in a lane has the right-of-way. The driver changing lanes has a responsibility to make sure it is safe. In most instances, a driver who changes lanes and hits another vehicle will be responsible for the crash. However, if the other driver does something to prevent the lane change, such as speeding up or slowing down, they might be liable for the crash.



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Merging traffic – When traffic lanes merge or when a driver turns into a lane from another road, the driver driving straight ahead in the lane has the right-of-way. Again, it is the responsibility of the merging driver to check first before merging. However, when a driver sees another vehicle attempting to merge, they should either move over or slow down. If they fail to do so, they could also be liable for the crash.

Some lane change accidents are caused because drivers do not know how to change lanes safely. Like most vehicle collisions, lane change accidents could be prevented if drivers are alert and exercise adequate caution.

In order to avoid an auto accident while changing lanes, it's important to:

- Use your turn signal to indicate that you intend to change lanes
- Check your rearview mirrors and blind spots
- Maintain your current speed while changing lanes
- Only change one lane at a time
- Avoid changing lanes marked by solid lines
- Avoid changing lanes at an intersection

Determining if it is safe to change lanes requires you to estimate the speed of vehicles both ahead and behind you. In hazardous weather conditions, such as rain or ice, you should allow a greater distance between vehicles before changing lanes. If you are ever uncertain about whether or not it is safe to merge, you should wait until there is a safer opportunity.

1.156 Preventing Rear End Collisions

Rear end collisions are the most common type of motor vehicle crash in the United States. The National Highway Traffic Safety Administration reports that these collisions, in which one vehicle strikes the back of another vehicle, represent nearly a third of all crashes. While few are deadly, they are a major cause of injury and property damage.

Here are four common sense tips that can help you avoid a costly crash:

1. Maintain a Safe Following Distance

Whether you are on highways, city streets, or rural roads, it is important to keep a safe distance between your car and the car in front of you. A safe following distance is one that will allow you to perceive the car in front of you braking, put your foot on your brake, and stop the car safely.

The National Safety Council and several state DMVs now recommend using the three-second rule to judge your following distance during normal daytime driving conditions:



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- Choose an object on or near the road ahead to use as a fixed reference point, like a sign, a tree, or an overpass.
- As soon as the rear end of the vehicle in front of you passes the object, start counting: one thousand one, one thousand two, one thousand three.
- If you pass the object before you finish counting, you are following too closely.
- If you finish counting before you pass the object, you have established a good following distance.

2. Increase Your Following Distance When Necessary

Depending on road conditions, three seconds might not be enough. Road conditions can make it harder to perceive hazards and harder for your brakes to stop your car safely. Increase your following distance to four or more seconds when:

- Driving on slippery roads. Roads can become slippery due to rain, snow, and ice. Be sure to watch for fallen leaves which can become especially slippery when wet.
- Driving in low visibility. You should always increase your following distance in the dark, but seasonal weather conditions can contribute to low visibility even in the daytime. Fog, rain, and snow often limit how far you can see. Make sure your wiper blades are in good condition and consider using a water-repellent windshield treatment. On sunny fall and winter days, glare from the sun's low angle can temporarily blind you. Have your sunglasses at the ready and keep both the inside and outside of your windshield free of dust and smudges for the best visibility.
- Being tailgated. If you notice a vehicle following you too closely, give yourself extra room ahead so that you will not need to brake suddenly. Lose the tailgater as soon as you safely can by letting them pass you.
- Following a large vehicle that blocks your view of the road ahead. Hanging back will give you better visibility and keep you out of that vehicle's blind spots.
- Following a vehicle that may stop frequently, such as buses, garbage trucks, or postal service vehicles. Vehicles like these may also be required to stop at railroad crossings or other unexpected locations.

3. Be Aware of Your Surroundings

Scanning the road ahead of you is essential, but you should also be alert to road conditions at your sides and behind you. If you encounter an unexpected situation such as debris in the road, a stalled car, an accident, an emergency vehicle approaching from behind you, you will have alternative options besides slamming on the brakes, such as speeding up, changing lanes, or turning.



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- Get into the habit of checking your mirrors frequently as you drive. Always look in your mirrors before you reduce your speed, including when you are preparing to make a turn onto a side road or driveway.
- Do not stay in another driver's blind spot and avoid driving directly next to other vehicles. The other driver could drift or change lanes without looking and hit you, and you could get boxed in with nothing else to do but hit the brakes if you encounter a hazard in your lane.
- When you come to a stop, leave enough space between your car and the vehicle in front of you to be able to change lanes or pull over to the side of the road if necessary.

4. Be Predictable

Letting other drivers know your intentions is crucial to staying safe. It can be irritating when drivers suddenly change lanes without signaling, or slow abruptly to make a turn but worse, maneuvers like these put everyone at risk of a crash.

- Rather than stopping suddenly, slow gradually when approaching a stop sign, red light, or when preparing to turn.
- Activate your turn signal in plenty of time for your turn or lane change.
- Check your signal lights frequently to make sure they are in good working order. Make sure to include your headlights, brake lights, and turn signals in the front and the rear.

1.157 PG&E SIF Capacity and Learning Model

PG&E uses the SIF Capacity & Learning Model in their approach to Safety.

Presentations and trainings on the SIF Capacity & Learning Model are available to through PG&E upon request.

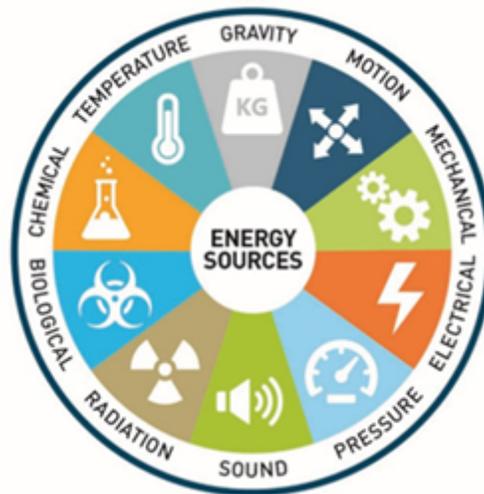
This approach has four key elements:

- **STKY - STUFF THAT KILLS YOU**
The focus is specifically identifying the mitigating risk exposure to hazards that can seriously injure or kill people.

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- **ENERGY WHEEL**

This is a hazard identification tool that must be used to identify the presence of high energy hazards before and during work. Incidents with more than 500 footpounds (ft-lb) of energy are more likely to be a SIF than not. Therefore, the term ‘high-energy’ refers to a condition where the physical energy exceeds 500 ft-lb, which corresponds to a condition where the most likely outcome of an incident is a SIF.



- **OPERATIONAL LEARNING**

An approach to learning and improving which examines both successful operations and failure. Operational learning relies on frontline workers explaining how work is performed. Organizations which actively seek opportunities to learn are successful in enhancing their performance while creating the capacity to fail safely.

- **DIRECT CONTROLS**

Once the high energy hazard is identified, it must be appropriately controlled through the use of preventative and/or mitigative controls. Direct controls provide the highest level of safety and must be implemented whenever possible. A direct control is one that is specifically targeted to the high-energy source; effectively mitigates exposure to the high-energy source when installed, verified, and used properly (i.e., a SIF reasonably should not occur if these conditions are present); and is effective even if there is unintentional human error during the work (unrelated to the installation of the control). Examples of direct controls include LOTO, machine guarding, hard physical barriers, fall protection, and cover-



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up. Examples that are NOT direct controls include training, warning signs, rules, and experience because they are susceptible to unintentional human error.

1.157.1 Direct Controls

Direct controls are proactive measures implemented to prevent incidents, including rollovers, even in the presence of human error. These controls aim to address underlying factors contributing to rollovers and mitigate risks effectively. Direct controls specifically designed for rollover prevention include but are not limited to:

1. **Electronic Stability Control (ESC):**
Functionality: ESC is a technology that helps prevent skidding and loss of control by automatically applying brakes to individual wheels and, in some cases, reducing engine power.
Preventive Action: ESC intervenes when it detects loss of traction or instability, helping to stabilize the vehicle and prevent rollovers caused by oversteer or understeer.
2. **Roll Stability Control (RSC):**
Functionality: RSC is a specialized form of ESC designed specifically to prevent rollovers.
Preventive Action: RSC uses sensors to monitor vehicle parameters such as speed, steering angle, and lateral acceleration. It can apply brakes to specific wheels or reduce engine power to counteract conditions that may lead to rollovers, such as excessive cornering forces or sudden maneuvers.
3. **Anti-lock Braking System (ABS):**
Functionality: ABS prevents wheels from locking up during braking, allowing the driver to maintain steering control and avoid skidding.
Preventive Action: By preventing wheel lockup, ABS helps maintain traction and stability during emergency braking, reducing the risk of losing control and potentially rolling over.
4. **Tire Pressure Monitoring System (TPMS):**
Functionality: TPMS continuously monitors tire pressure and alerts the driver if any tire is significantly underinflated.
Preventive Action: Proper tire inflation is crucial for vehicle stability and handling. TPMS helps ensure that tires are inflated to the correct pressure, reducing the likelihood of tire blowouts and loss of control that can lead to rollovers.
5. **Vehicle Load Monitoring and Warning Systems:**
Functionality: These systems monitor the distribution and weight of cargo in the vehicle.
Preventive Action: Overloading or uneven distribution of cargo can increase the risk of rollovers by raising the vehicle's center of gravity and altering its handling.



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characteristics. Load monitoring and warning systems alert drivers if the vehicle is overloaded or if cargo distribution is imbalanced, allowing corrective action to be taken.

6. Driver Assistance Systems:

Functionality: Various driver assistance systems, such as lane departure warning, blind-spot monitoring, and adaptive cruise control, help drivers maintain control and awareness of their surroundings.

Preventive Action: These systems provide additional support to drivers, alerting them to potential hazards and assisting in avoiding situations that could lead to rollovers.

7. Training and Education:

Functionality: Comprehensive driver training programs educate drivers on safe driving techniques, vehicle dynamics, and the risks associated with rollovers.

Preventive Action: Well-trained drivers are better equipped to recognize and respond to potential rollover situations, such as excessive speed in curves, abrupt steering maneuvers, or sudden lane changes. Training instills a safety mindset and promotes proactive behaviors that reduce the likelihood of rollovers.

1.158 Substance Abuse

Employees are strictly prohibited from operating a motor vehicle while under the influence of drugs or alcohol. This includes:

- Blood alcohol level at or above the local legal limit,
- Illegal drugs, including marijuana, and
- Prescription medications that cause drowsiness or other conditions that may cause impairment. Employees taking prescription medication that may impact their safety shall report this to their supervisor.

1.159 Incidents

Motor vehicle incidents occurring while on company business shall be reported immediately, regardless of the severity. Emergency services should be called first (if necessary). All incidents shall be reported to the insurance company and the employee's supervisor as soon as feasible. All incidents shall be reviewed / investigated for the purpose of determining preventability, root causes, implementing corrective actions, identifying future preventive actions, and validating implementation and effectiveness of corrective actions.



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1.160 Communication

All internal and external communications must be clear and accurate. Communication of serious incidents, trends, and lessons learned are given through email communication and regular safety meetings. Client specific driving safety communications are conducted through safety meetings, tailgate meetings, toolbox talks, and training.

1.161 Cargo

Any cargo on or in motor vehicles shall be adequately stored and secured to prevent unintentional movement of tools and equipment which could cause spillage, damage to the vehicle, damage to the environment, or injury to the operator.

1.162 Railroad Crossing Safety

The following precautions must be taken at all controlled and uncontrolled railroad crossings including the use of special or tracked vehicles:

- Never drive around lowered gates.
- Never race a train to the crossing.
- Do not get trapped on the tracks. Only proceed through a highway-rail grade crossing if you are sure that you can completely clear the crossing without stopping. Remember, a train is at least 3 feet wider than the tracks on each side.
- Get out of your vehicle if it stalls. If your vehicle stalls on a crossing, immediately get everyone out and far away from the tracks. Call your local law enforcement agency for assistance. If a train is coming, get out immediately and move quickly away from the tracks in the direction the train is coming from. If you run in the same direction the train is traveling, when the train hits your vehicle, you could be injured by flying debris.
- Watch out for a second train. If you are at a multiple track crossing and are waiting for a train to pass, watch out for a second train on the other tracks, approaching in either direction.
- Expect a train on any track at any time. Most trains do not travel on a regular schedule. Be cautious at a highway-rail grade crossing at any time of the day or night.
- Be aware that trains cannot stop quickly. Even if the locomotive engineer sees you, a freight train moving at 55 miles per hour can take a mile or more to stop once the emergency brakes are applied.



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- Do not be fooled. The train you see is closer and is moving faster than you think. If you see a train approaching, wait for it to go by before you proceed across the tracks.
- Cross train tracks at a designated crossing only. When you need to cross train tracks, go to a designated crossing, look both ways, and cross the tracks quickly without stopping. It is not safe to stop closer than 15 feet from the rail.
- Do not walk on or over railroad property. Railroad tracks, trestles, yards, and equipment are private property and trespassers are subject to arrest and fine.
- Cross tracks only at designated pedestrian or roadway crossings. Do not walk, run, cycle or operate all-terrain vehicles (ATVs) on railroad tracks, rights-of-way or through tunnels. The only safe place to cross railroad tracks is at a designated public crossing.
- Do not cross the tracks immediately after a train passes. A second train might be blocked by the first. Trains can come from either direction. Wait until you can see clearly around the first train in both directions.
- Never walk around or behind lowered gates at a crossing. Do not cross the tracks until the lights have stopped flashing and it is safe to do so. You can be fined for failure to obey these signals. The more severe penalty could be a serious injury or death.

1.163 Vehicle Specifications

All vehicles must be used for their intended purpose only. Improper use of company vehicles may result in disciplinary action including termination of employment.

Company vehicles are intended to be used for company use only. Personal use is strictly prohibited unless prior permission is granted by management. When assigned a company vehicle, its use is restricted to the assigned driver only. Use by family members or non-employees is not permitted.

1.164 Vehicle Inspection and Maintenance

Vehicles shall be in a safe and working condition.

Pre-use inspections shall be performed before operating a vehicle. This consists of a walk-around the vehicle to check for any defects to the vehicle and ensure there are no barriers blocking the path. Company-owned vehicles shall have a maintenance program in place meeting the minimum manufacturer's recommendation.

In the event employees are driving personal vehicles for company business, pre-use inspections and regular vehicle maintenance shall still be completed.



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1.165 Journey Management

Journey Management is a process for planning and executing necessary land transport journeys in compliance with HSE requirements.

When making a road journey, whether it is for business or pleasure, chances of arriving safely are greatly increased by careful planning. Fail to plan adequately and chances of being involved in an incident will increase.

1.166 Plan Review

The Journey Management Plan shall be reviewed with road travelers before they perform any driving on company business. A copy of the plan shall be readily available at the workplace. Road travelers shall carry a copy of the plan.

1.167 Journey Planning

1.167.1 Necessary Driving

Road journeys shall only be taken when necessary. Completing multiple tasks in single trips will reduce the amount of driving for improved safety and efficiency. If the trip is being taken to meet with someone, determine if the meeting can be done over the phone instead. Safer methods of travel (air, train, etc.) shall be considered where practicable.

1.167.2 Day vs Night Driving

Driving shall be done during daylight hours rather than after dark whenever possible. Reduce speed when driving at night. Be aware of the potential for wildlife to be on the road, especially when driving at dusk or dawn.

1.167.3 Weather Conditions

Before leaving on a trip, employees shall ensure that weather conditions are safe for driving and the vehicle being used is adequate for the weather conditions. Ensure emergency supplies are in the vehicle and the driver has a cell phone in case of emergency. In particularly harsh conditions, employees shall consider canceling or rescheduling the trip.

1.167.4 Driving Directions

Before taking a trip to an unfamiliar location, employees shall familiarize themselves with the route. Allow extra time to account for delays.



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1.167.5 Travel Plan Notification

Employees shall notify their supervisor or another individual who is not traveling with them of their travel plans. This includes where they are going, when they should arrive, and when they plan to return. If diversion from the planned route is necessary, notify the supervisor or other individual of the change.

1.167.6 Communication

Drivers shall always carry a cell phone and charger, especially when traveling in rural areas. Consider subscribing to an in-vehicle communication / remote diagnostic service (e.g., On-Star) if the vehicle is equipped with one.

1.167.7 Fatigue Management

Fatigue is one of the most obvious consequences of poor journey planning and is a major contributing factor in road traffic incidents. A good Journey Management Plan shall consider all the factors that will minimize your chances of feeling sleepy while driving.

When driving long distances, sufficient breaks shall be taken to prevent fatigue. Plan when and where to take breaks. When driving alone and having trouble staying awake, pull off the road to a safe area and get out of the vehicle for fresh air or take a power nap. If driving late at night, consider getting a hotel room and starting fresh the next day. If two licensed drivers are in the vehicle, take turns driving. Get plenty of rest before beginning the journey.

1.167.8 Emergency Preparedness

Roadside emergency kits shall be kept in all vehicles used for highway travel. These kits shall include equipment to assist in a roadside emergency such as water, booster cables, first aid supplies, warning triangles, flashlights, etc. If there is a potential for snow and ice, carry sandbags and a shovel.

1.168 Fatigue Management

Employees shall be well rested, alert, and sober on the road. Drivers shall continually search the roadway to be alert to situations requiring quick action. Drivers are required to stop about every 2 hours for a break and get out to stretch, take a walk, and get refreshed.



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1.169 Reward and Recognition

A recognition and reward system is in place and is administered in a fair and uniform manner and encourages safe behavior, immediate reporting of incidents, and active participation in the driving safety program.

Drivers who achieve the highest standards in their annual driver assessment are awarded. Also, employees who come up with ideas about how to improve the company safety procedures or how to make work-related driving safer are awarded.

Conversely, drivers who are identified as breaking driver rules and regulations face a clearly defined disciplinary process.

In order to be rewarded for safe driving, drivers must meet these requirements:

- Be free of preventable accidents
- Must not violate any safety policies or procedures
- All daily responsibilities must be completed, such as pre and post trip inspections
- Failure to report damages will disqualify driver from program entirely

1.170 Regulatory Compliance Management

The fleet manager is responsible for monitoring federal, state, and local regulations to comply with all regulations and implement any policy/procedure changes in a timely manner.

The Regulatory Compliance Management System addresses:

- Vehicles Subject to California's Basic Inspection of Terminals (BIT) Program
- Motor Carrier Certification of Compliance (CHP 809 Form)

1.171 Audit

The company's auditing process monitors compliance with regulations and the company's driving safety program on an annual basis.

The auditing process considers all road users, accounts for human factors and road user capabilities, is documented in a formal report, and requires a formal response.

Audits provide the following benefits:

- Reduced number and severity of crashes due to safer designs.



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- Reduced costs resulting from early identification and mitigation of safety issues beforehand.
- Increased opportunities to integrate multimodal safety strategies and proven safety countermeasures.
- Expanded ability to consider human factors in all facets of design.
- Increased communication and collaboration among safety stakeholders.
- Objective review.



VRG Controls LLC Electrical Safety Program - NFPA 70E and NFPA 70B

16. ELECTRICAL SAFETY PROGRAM - NFPA 70E AND NFPA 70B

1.172 Purpose and Scope

The purpose of the Electrical Safety Program (ESP) is to comply with electrical systems regulatory requirements to ensure that energized electrical work is performed safely by qualified electrical workers who are provided with appropriate safe work procedures, protective equipment, and other controls. It is intended to protect employees against electrical-related hazards. These hazards include electrical shock and burns, arc flash burns, arc-blast impacts, falls, and other potential electrical safety hazards. Working on equipment in a de-energized state is required unless de-energizing introduces an increased hazard or is infeasible (e.g., troubleshooting, voltage measuring, etc.).

This procedure applies to all VRG Controls LLC employees.

1.173 ELECTRICAL SAFETY PROGRAM - NFPA 70E AND NFPA 70B

The Company recognizes some extraordinary situations may require work to be performed while the equipment is energized due to additional or increased hazards or if it is infeasible due to the equipment design or operational limitations. The situations include (but are not limited to):

- Deactivation of emergency alarm systems
- Shutdown of hazardous location ventilation equipment
- Testing of electric circuits that can only be performed with the circuit energized

The following guidelines, therefore, establish minimum requirements for working on energized equipment. This guideline is mandatory and applies to all employees and subcontractors.

1.174 Related Standards and Operating Procedures

- NFPA® 70E: Standard for Electrical Safety in the Workplace, 2018 edition
- NFPA® 70B: Recommended Practice for Electrical Equipment Maintenance, 2016 Edition
- OSHA 29 CFR 1910.331 through 1910.335, "Electrical Safety-Related Work Practices"
- Appendix A: Normal Operation Flow Chart
- Appendix B: Hazard Identification and Risk Assessment Procedure
- Appendix C: Energized Work Permit
- Appendix D: Approach Boundaries of Live Parts for Shock Protection



VRG Controls LLC Electrical Safety Program - NFPA 70E and NFPA 70B

- Appendix E: Job Briefing
- Appendix F: Re-energization of Electrical Circuits Flow Chart
- Appendix G: Electrical LOTO Flow Chart
- Appendix H: Guidance on Selection of Arc-Rated Clothing
- Appendix I: Inspection Schedule for Rubber Insulated Equipment
- Appendix J: Electrical Contractor Qualification Certification
- Appendix K: Detailed Method of Procedure
- Appendix L: Contact Release of Energized Parts

1.175 Definitions

Arc Flash Hazard – A dangerous condition associated with the release of energy caused by an electric arc.

Arc Flash Risk Assessment – A study investigating a worker’s potential exposure to arc-flash energy, conducted for the purpose of injury prevention and the determination of safe work practices and appropriate levels of PPE (Personal Protective Equipment).

Arc Rating – The value attributed to materials that describe their performance to exposure to an electrical arc discharge. The arc rating is expressed in cal/cm² and is derived from the determined value of the arc thermal performance value (ATPV) or energy of breakopen threshold (EBT) (should a material system exhibit a breakopen response below the ATPV value). Arc rating is reported as either ATPV or EBT, whichever is the lower value.

- NOTE: “Break open” is a material response evidenced by the formation of one or more holes in the innermost layer of flame-resistant material that would allow flame to pass through the material.

ATPV – Arc Thermal Performance Value: This is also expressed in cal/cm² and is another method of determining the arc rating of clothing.

Balaclava (Sock Hood) – An arc-rated hood that protects the neck and head except for the facial area of the eyes and nose.

Barricade – A physical obstruction such as tapes, cones, or A-frame-type wood or metal structures intended to provide a warning and to limit access.



<p style="text-align: center;">VRG Controls LLC Electrical Safety Program - NFPA 70E and NFPA 70B</p>

Boundary, Arc Flash Protection – An approach limit at a distance from exposed live parts within which a person could receive a second-degree burn if an electrical arc flash were to occur.

- A second-degree burn is possible by an exposure of unprotected skin to an electric arc flash above the incident energy level of 5 J/cm² (1.2 cal/cm²).

Boundary, Limited Approach – An approach limit at a distance from an exposed energized electrical conductor or circuit part within which a shock hazard exists.

- The limited approach boundary is a shock protection boundary that is not related to arc flash or incident energy. The arc flash boundary may be greater than, less than, or equal to the limited approach boundary. This boundary defines the approach limit for unqualified employees and is intended to eliminate the risk of contact with an exposed energized electrical conductor or circuit part.

Boundary, Restricted Approach – An approach limit at a distance from an exposed energized electrical conductor or circuit part within which there is an increased likelihood of electric shock, due to electrical arc-over combined with inadvertent movement, for personnel working in close proximity to the energized electrical conductor or circuit part.

- This shock protection boundary is the approach limit for qualified employees.

De-energized – Free from any electrical connection to a source of potential difference and from electrical charge; not having a potential difference from that of the earth. De-energized does not describe a safe condition.

Electrical Hazard – A dangerous condition such that contact or equipment failure can result in electric shock, arc flash burn, thermal burn, or blast.

Electrical Safety – Recognizing hazards associated with the use of electrical energy and taking precautions so that hazards do not cause injury or death.

- Electrical safety is a condition that can be achieved by doing the following:
 - Identifying all of the electrical hazards
 - Generating a comprehensive plan to mitigate exposure to the hazards
 - Providing protective schemes, including training for both qualified and unqualified persons

Electrically Safe Working Condition – A state in which the conductor or circuit part to be worked on or near has been disconnected from energized parts, locked/tagged in accordance with



<p>VRG Controls LLC</p> <p>Electrical Safety Program - NFPA 70E and NFPA 70B</p>
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established standards, tested to ensure the absence of voltage, and grounded if determined necessary.

- Establishing an electrically safe work condition (ESWC) is the only work procedure that ensures that an electrical injury cannot occur. Establishing an ESWC is an example of elimination — one of the controls in the hierarchy of safety controls.

Energized – Electrically connected to, or is, a source of voltage.

Exposed (as applied to energized electrical conductors or circuit parts) – Capable of being inadvertently touched or approached nearer than a safe distance by a person. It is applied to electrical conductors or circuit parts that are not suitably guarded, isolated, or insulated.

Ground-Fault Circuit Interrupter (GFCI) – A device intended for the protection of personnel that functions to de-energize a circuit or portion thereof within an established period of time when a current to ground exceeds the values established for a Class A device.

- Class A ground-fault circuit-interrupters trip when the current to ground is 6 mA (milliamp) or higher and do not trip when the current to ground is less than 4 mA

(milliamp).

Hazard – A source of possible injury or damage to health.

Incident Energy – The amount of thermal energy impressed on a surface, a certain distance from the source, generated during an electrical arc event. Incident energy is typically expressed in calories per square centimeter (cal/cm²).

Incident Energy Analysis – A component of an arc flash risk assessment used to predict the incident energy of an arc flash for a specified set of conditions.

Labeled – Equipment or materials to which has been attached a label, symbol, or other identifying mark of an organization that is acceptable to the authority having jurisdiction and concerned with product evaluation, that maintains periodic inspection of production of labeled equipment or materials, and by who's labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

Listed – Equipment, materials, or services included in a list published by an organization that is acceptable to the authority having jurisdiction and concerned with evaluation of products or services, that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services, and whose listing states that either the equipment, material, or service meets appropriate designated standards or has been tested and found suitable for a specified purpose.

Limited Approach Boundary – See... Boundary, Limited Approach.



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Meter, CAT III (3) – Locations permitted – single phase and three phase distribution, including lighting equipment in fixed installations, switchgear, panelboards, branch circuit panels, feeders on short branch circuits, heavy appliance outlets with short branch circuits, MCC (motor control centers), motors, and buss feeders in industrial plants.

Meter, CAT IV (4) – Origin of installation: where low-voltage connection is made to utility power, electricity meters, primary overcurrent protection equipment, outside and service entrance, service drop from pole to building, run between meter and panel, overhead line to detached building, underground line to well pump.

Panelboard – A single panel or group of panel units designed for assembly in the form of a single panel, including buses and automatic overcurrent devices, and equipped with or without switches for the control of light, heat, or power circuits; designed to be placed in a cabinet or cutout box placed in or against a wall, partition, or other support; and accessible only from the front.

Qualified Person – One who has demonstrated skills and knowledge related to the construction and operation of electrical equipment and installations and has received safety training to identify and avoid the hazards involved.

- The OSHA definition of a qualified person (29 CFR 1910.399) includes the phrase “has demonstrated skills.” This requires that the person actually demonstrate the ability to perform the task. It may be necessary to demonstrate the ability to perform the task while using appropriate PPE to ensure that the restricted lighting and field of view of the flash suit hood or the dexterity limitations of voltage-rated gloves with leather protectors do not hinder the employee.

Risk – A combination of the likelihood of occurrence of injury or damage to health and the severity of injury or damage to health that results from a hazard.

Risk Assessment – An overall process that identifies hazards, estimates the potential severity of injury or damage to health, estimates the likelihood of occurrence of injury or damage to health, and determines if protective measures are required.

Shock Hazard – A dangerous condition associated with the possible release of energy caused by contact or approach to energized electrical conductors or circuit parts.

Single-Line Diagram – A diagram that shows, by means of single lines and graphic symbols, the course of an electric circuit or system of circuits and the component devices or parts used in the circuit or system.



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1.176 Responsibilities

OSHA compliance requires the Company to:

- Provide and demonstrate a safety program with defined responsibilities
- Provide and document employee training covering Lockout/Tagout procedure, Energized Work permit, and the hazards of arc flash
- Provide personal protective equipment (PPE) for workers
- Provide appropriate tools for safe work
- Have qualified personnel determine the degree of arc flash hazard
- Affix warning Arc Flash / Shock Hazard Labels on equipment

The Electrical Safety Plan and fieldwork shall be audited to verify the principles and procedures of the program comply with this plan. The audit shall be documented its frequency shall not exceed 3 years. Each department will determine the assignment of the following responsibilities based on staff expertise, resources, and agency-specific considerations.

1.177 EH&S (Environmental Health and Safety)

Designs, develops, implements, and validates programs and processes that assess and control risks related to potential electrical hazards.

- Maintains training records
- Verifies trainings are up to date and documented
- Provides or coordinates general training on the content of this program
- Evaluates the overall effectiveness of the electrical safety program
- Verifies electrical Arc Flash and Shock Hazard assessments have been completed by a third party.
- Verify contractor qualifications and training are acceptable after reviewing Electrical Contractor Qualification Certificates (Appendix J) gathered by the Head of PE&M.
- Electrical safety program shall be revised to verify that the principles and procedures of the electrical safety program are in compliance with latest standards. Review shall be performed at intervals not to exceed 3 years.



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- Shall audit field work to verify that the requirements contained in the procedures of the electrical safety program are being followed. When the auditing determines that the principles and procedures of the electrical safety program are not being followed, the appropriate revisions to the training program or revisions to the procedures shall be made. Audits shall be performed annually.
- Determines the applicability of the electrical safety program to activities conducted within their respective areas
- Designates individuals responsible for the implementation of the electrical safety program within their areas
- EH&S will review qualification documents and will grant approvals to individuals who must perform electrical servicing activities. This will be done through the maintenance of qualified member training record(s) and a listing of qualified members
- All live work permits shall be reviewed for approval by EH&S and then routed to the Head, PE&M for final consent. Completed forms shall be finally routed to EH&S for recordkeeping once work has been completed.

1.178 Employees

Everyone is responsible for their own safety and each individual should participate in this process. It is also each employee's responsibility to report any and all unsafe conditions or acts to their immediate supervisor. If in doubt about who to report incidents to, contact the EH&S department.

- Follows safe work practices described in this document and uses appropriate protective equipment and tools
- Attends required training
- Immediately report any concerns to Head, PE&M or EH&S, as appropriate

1.179 Plant Engineering and Maintenance Staff

Proper maintenance and work methods are an essential part of electrical safety. Facility maintenance plays a crucial role in the overall safety of a facility.

- Ensures systems and equipment are installed in a safe and reliable manner
- Meets all local codes and regulations



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1.180 Head, PE&M

As the Head of PE&M, it is a daily responsibility to ensure safe electrical work practices are being followed and that the appropriate personnel are assigned to the task, taking into account their ability and level of training to perform the job safely.

- Ensures employee work areas are free from electrical hazards
- Ensures employees comply with all provisions of the electrical safety program
- Ensures contractors working on electrical systems and equipment are qualified (by asking them to complete the Electrical Contractor Qualification Certification - Appendix J) and utilize safe work practices that ensure the safety of their workers and employees affected by their work
- Forwards copies of all Electrical Contractor Qualification Certifications (Appendix J) to EH&S
- All energized work permits shall be reviewed for approval by EH&S and then routed to the Head, PE&M for final consent. Completed forms shall be finally routed to EH&S for recordkeeping once work has been completed
- Labels electrical equipment according to the outline in Labeling Section
- 11.0 of this procedure
- Ensures employees receive training appropriate to their assigned electrical tasks including safe work practices, personal protective equipment and hazard recognition
- Maintains documentation of training
- Ensures employees are provided with and use appropriate protective equipment
- Ensures proper testing of PPE has been completed and is up-to-date
- Ensures employees comply with the Control of Hazardous Energy Program (Lockout/Tagout)

1.181 General Electrical Safety Requirements

Electrical work is conducted and equipment installed in accordance with NFPA 70E- 2018 and other applicable standards..



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General Electrical Safety Requirements covers potential hazards in the workspace such as exposed electrical circuit parts and the increased awareness required when service persons are working within the work environment.

1.181.1 Risks

Risks must be eliminated/reduced in accordance with the hierarchy of controls principle:

- Achieving an electrically safe work condition
- Engineering controls
- Administrative controls (posting signs and tags)
- Personal Protective Equipment

1.181.2 Employee Exposure Risks

- EH&S and the PE&M Head work together to ensure the implementation of appropriate electrical safety process elements, requirements, procedures or safe practices for all employees. Requirements shall address risks associated with employee exposures such as exposed wiring, use of extension cords, use of electrical apparatus and maintaining safe distances from electrical servicing activities. The following are the minimum requirements:
- Office appliances, commercial equipment and components must be maintained in a safe working condition and should be listed, labeled, identified, or approved for their intended use by a recognized testing laboratory.
- Equipment covers and guards must be in place during normal operation to ensure employees are not exposed to energized circuits, components, or connections. Damaged or unsafe apparatus shall be removed from service.
- Individuals must maintain a safe distance from electrical servicing activities based on equipment labeling of shock and arc flash hazards. Individuals shall never attempt to remove another authorized person's lock and/or tag from the equipment or system being serviced.
- Circuit breakers in panel boards must be labeled with what they control. Spare breakers shall be labeled as "Spare" and left in the off position.
- Use of ground fault circuit interrupters (GFCI's) is required on circuits serving outlets in damp, wet, outdoor locations, and in any other location where individuals using electrical apparatus could become well grounded.



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- Permanently installed GFCIs are tested according to the manufacturer's recommended frequency.
- Maintain 36-inch clearance around electrical panels and disconnects.
- Assemble the appropriate up-to-date and accurate one line diagrams for each facility. Where feasible, maintain posted set of one lines diagrams that represent the power distribution.

1.182 Work Involving Electrical Hazards including Low Voltage and High Voltage Procedures

The following electrical safety related work practices establish when a qualified person must place equipment into an electrically safe work condition and if an electrically safe work condition cannot be established, the electrical safety related work practices that must be followed.

1.182.1 Electrically Safe Working Conditions

Energized electrical conductors and circuit parts shall be put into an electrically safe work condition before an employee/contractor performs work if any of the following conditions exist:

- The employee is within the limited approach boundary
- The employee interacts with equipment where conductors or circuit parts are exposed or not exposed but an increased likelihood of injury from an exposure to an arc flash hazard exists (as indicated on the Arc Flash / Shock Hazard Labels).

1.182.2 Energized Work

Energized work is allowed or justified ONLY if either of the following conditions are satisfied:

- Additional Hazards or Increased Risk – Energized work shall be permitted where the Company can demonstrate that de-energizing introduces additional hazards or increased risk.
 - The additional hazards do not have to be electrical hazards, and the increased risk does not have to be from electrical hazards; they can be chemical, mechanical, life safety, or environmental hazards.
 - Examples of additional hazards or increased risk include, but are not limited to, leak detection systems or the shutdown of hazardous location ventilation equipment.
- Infeasibility – Energized work shall be permitted where the Company can demonstrate that the task to be performed is infeasible in a de-energized state due to equipment design or operational limitations.



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- Infeasible does not mean impractical. In many situations, due to equipment design limitations, diagnostic work such as voltage measurement, troubleshooting, and testing of electrical equipment is infeasible to perform without the employee being exposed to energized conductors and circuit parts.
- Examples of work that might be performed within the limited approach boundary of exposed energized electrical conductors or circuit parts because of infeasibility due to equipment design or operational limitations include performing diagnostics and testing (for example, start-up or troubleshooting) of electric circuits that can only be performed with the circuit energized.
- Less Than 50 Volts – Energized electrical conductors and circuit parts that operate at less than 50 volts do not have to be de-energized where the capacity of the source and any overcurrent protection between the energy source and the worker are considered and it is determined that there will be no increased exposure to electrical burns or to explosion due to electric arcs. For example: teledata and building energy management system (Johnson Controls).
 - Only those systems operating at 50 volts and less — where there is an appropriately sized overcurrent protective device (OCPD) located between the worker and the source, and the characteristics of the device and the capacity of the source considered together do not increase the risk of exposure to electrical burns or to explosions from electrical arcs — fall under this exception.

1.182.3 Normal Operation of Electrical Equipment

Normal operation of electric equipment shall be permitted where all of the conditions listed below are satisfied. When equipment is considered to be operating normally, the risk associated with normal operation is generally considered to be acceptable. If all the conditions below have not been met, PPE shall be worn covers on or covers off. (See Appendix A - Normal Operation Flow Chart)

- The equipment is properly installed.
The phrase properly installed means that the equipment is installed in accordance with applicable industry codes and standards and the manufacturer's recommendations.
- The equipment is properly maintained.
The phrase properly maintained means that the equipment has been maintained in accordance with the manufacturer's recommendations and applicable industry codes and standards and there is a documented record of maintenance that has occurred.
- The equipment is used in accordance with instructions included in the listing and labeling and in accordance with manufacturer's instructions.



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- The equipment doors are closed and secured.
- All equipment covers are in place and secured.
Covers are not damaged and all screws or mounting hardware is in place and in good condition.
- There is no evidence of impending failure.
The phrase evidence of impending failure means that there is evidence such as arcing, overheating, loose or bound equipment parts, visible damage, or deterioration.

1.183 Hazard Identification and Risk Assessment Procedure

Before working within the limited approach boundary or arc flash protection boundary, a Hazard Identification and Risk Assessment Procedure (Appendix B) shall be conducted to identify any unacceptable risks for the task.

Whether an electrical hazard exists. (Each possible hazard must be considered.)

- What is the degree or capacity of the hazard? (The maximum possible injury that could result is determined.)
- Will the worker be exposed to the electrical hazard? (If the task requires a worker to be within the shock and/or arc flash boundary of the equipment that presents the possible exposure.)
- What work practices can minimize exposure to potential injury?
- What PPE can minimize the risk of injury?
- Is authorization required before beginning the task?
- Is a written plan necessary before beginning the task?
- Is the risk of injury acceptable?
- Confirmation that work with hazardous electrical energy is justified. (see article 7.2)
- Is this energized work? Documentation assessments of the rationale for performing this energized work.
- Completion of an Energized Work Permit, Appendix C.



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1.183.1 Definitions for Risk Assessment Matrix

- Likelihood (Probability) of Occurrence
 - Definite: Almost certain of happening
 - Likely: Can happen at any time
 - Occasional: Occurs sporadically, from time to time
 - Seldom: Remote possibility; could happen sometime; most likely will not happen
 - Unlikely: Rare and exceptional for all practical purposes; can assume it will not happen
- Severity of Injury
 - Catastrophic: Death or permanent total disability (PTD)
 - Critical: Permanent partial disability (PPD) or temporary total disability (TTD) 3 months or longer
 - Medium: Medical treatment and lost work injury (LWI)
 - Minor: Minor medical treatment possible
 - Slight: First aid or minor treatment

1.183.2 Risk Codes

- Extreme (E): Intolerable risk, do not proceed. RISK COLOR “RED”
 - Immediately introduce further controls, detailed action and plan required. Find other methods to obtain data, such as planned shutdown and making electrically safe, test records, or electrical drawings.
- High (H): Risk must be taken seriously. RISK COLOR “ORANGE”
 - Review and introduce additional controls. Have standby person with matching PPE available. Review emergency action plan. Take appropriate time and consideration. Notify all affected personnel and obtain consent from EH&S and Head, PE&M.
- Moderate (M): RISK COLOR “YELLOW”
 - Take remedial action at appropriate time. Tolerable risk incorporates some level of risk that is unlikely to occur. Have standby person with matching PPE available. Review emergency action plan. Notify all affected personnel and obtain consent from EH&S and Head, PE&M.



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- Low (L):RISK COLOR “GREEN”
 - Manage by routine procedures, little or no impact. Take appropriate time. Have standby person with matching PPE. Notify all affected personnel.

1.183.3 Circumstances that might increase risk

- Loose connections
- Loose object in enclosure, such as a screw, bolt, tool, or component
- Equipment, component, or part at the end of its rated life (i.e., deteriorated due to time, number of operations, under certain conditions such as corrosion, moisture, external damage, excessive dust or debris, etc.)
- Vermin or insects in the equipment
- Defective component or part
- Unfamiliarity with equipment. (Know enough to say you don't know)

1.183.4 Hazard Risk Assessment Matrix

	Severity of the injury (consequences)				
Likelihood of occurrence in period	Slight	Minor	Medium	Critical	Catastrophic
Incident Energy in cal/cm ²	≤ 1.2	> 1.2 to ≤ 8	> 8 to ≤ 12	>12 to ≤ 40	> 40
Unlikely	Low	Low	Low	Moderate	Moderate
Seldom	Low	Low	Moderate	Moderate	High
Occasional	Low	Moderate	Moderate	High	Extreme
Likely	Moderate	Moderate	High	Extreme	Extreme
Definite	Moderate	High	Extreme	Extreme	Extreme



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1.184 Energized Work Permit

- If live parts are not placed in an electrically safe condition, work to be performed shall be considered energized electrical work and will be performed by written permit only.
- A copy of the Company's Energized Work Permit can be found in Appendix C. The intent of this permit is to ensure that all appropriate safety precautions are taken prior to starting energized electrical work. Work related to testing, troubleshooting, and voltage measuring may be completed without a permit provided appropriate safe work practices and PPE are used.
- The permit is to be originated by the individual completing or requesting the electrical work. This will normally be a Qualified Electrician or the Head, PE&M who is the supervisor of the employees who will be completing the work.
- All Energized Work Permits (Appendix C) should be submitted to an electrically knowledgeable person: EH&S or the Electrician for approval. They should then be routed to the Head, PE&M for final consent.
- The permit must be posted in the area where the energized work is taking place for the duration of the task.
- Copies of all energized work permits must finally be routed to EH&S for recordkeeping once work has been completed.
- Qualified Electrical Contractors (as outlined in NFPA 70E) shall follow the Company Energized Work Permit process (Appendix C) and follow procedures outlined in Section 7 of this document, Work Involving Electrical Hazards.

1.185 Exemptions to Work Permits

Work performed on or near live parts by qualified persons related to tasks such as testing, troubleshooting, voltage measuring, etc., shall be permitted to be performed without an energized work permit, provided appropriate safe work practice and personal protective equipment are provided and used.



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1.187 Approach Boundaries to Live Parts

Observing a safe approach distance from exposed energized parts is an effective means of maintaining electrical safety. As the distance between an individual and live parts increases, the potential for an electrical injury decreases.

- Shock Risk Assessment. A shock risk assessment shall determine the voltage to which personnel will be exposed, the boundary requirements, and the PPE necessary in order to minimize the possibility of electric shock to personnel.
- Shock Protection Boundaries. The shock protection boundaries identified as the limited approach boundary and the restricted approach boundary shall be applicable where approaching personnel are exposed to energized electrical conductors or circuit parts. Appendix D - Approach Boundaries to Live Parts for Shock Protection, shall be used for the distances associated with various AC/DC system voltages.
- Safe approach distances will be determined for all tasks in which approaching personnel are exposed to live parts operating at 50 volts or more.
- Safe approach distances to fixed live parts can be determined by referring to Appendix D - Approach Boundaries to Live Parts for Shock Protection. This form can be used to identify the Limited and Restricted Boundaries associated with various system voltages.
- Unqualified persons may only cross the Limited Approach Boundary when they are under the direct supervision of a qualified person.
- Unqualified persons may NOT enter the Restricted Approach Boundary.
- Qualified persons may NOT cross or take any conductive object closer than the Restricted Approach Boundary unless one of the following conditions apply:
 - The qualified person is insulated or guarded from the live parts.
 - The live parts are insulated from the qualified person and from any other conductive object at a different potential.



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- Qualified persons may only cross the restricted approach boundary when all of the following precautions have been taken:
 - The qualified person has specific training to work on energized parts.
 - The qualified person has obtained an approved Energized Work Permit unless the work they are performing is exempt (see section 7.5 above) from Energized Work Permit for tasks found in article 7.6.
 - The qualified person uses shock protection techniques and equipment appropriate for working on energized parts which are rated for the voltage and energy level involved.

1.188 Job Briefing

Before starting each multi-person project, the employee in charge shall conduct a job briefing with the employees involved. The briefing shall cover such subjects as hazards associated with the job, work procedures involved, special precautions, energy source controls, PPE requirements, and the information on the energized work permit, if required. Additional job briefings shall be held if changes that might affect the safety of employees occur during the course of the work.

Where exposure to potential electrical hazards is involved, the employee in charge should be both qualified and competent for the tasks to be performed (for working at the applicable voltage, for instance). See Appendix E - Job Briefing, for information on large scale or seldom occurring projects that are not a part of daily activities.

1.189 Re-energization of Electrical Circuits

Re-energizing electrical components in itself can be a very hazardous task. These procedures are designed to ensure the risk to employees has been considered and safety precautions are in place before re-energization can be completed. Before re-energizing circuits or electrical equipment, the following steps shall be done. See also Appendix F - Re-energization of Electrical Circuits Flow Chart.

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, and all exposed conductors are protected, so that the circuits and equipment can be safely energized.

Warn all potentially affected employees who may be exposed to the hazards associated with reenergizing the circuit or equipment to stay clear of circuits and equipment.



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Locks/Tags shall be removed only by the person applying the Locks/Tags. If person that applied the Locks/Tags is unavailable, measures shall be taken to verify person has been notified and is clear of the area.

Conduct a visual determination that all employees are clear of the circuits and equipment to be re-energized, and all affected equipment downstream.

When required, wear arc rated PPE suitable for protection from the hazard.

Use proper body position, stand off to the side of equipment, take a deep breath and hold, before closing device. If safe distances cannot be kept, or for high energy areas, use remote devices to open or close circuits.

1.190 Other Precautions for Personnel Activities

Employees shall not reach blindly into areas that might contain exposed live parts.

Employees shall not enter spaces containing live parts unless illumination is provided that allows the work to be performed safely.

Conductive articles of jewelry and clothing (such as watchbands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, metal headgear, or metal frame glasses) shall not be worn where they present an electrical contact hazard with exposed live parts.

Conductive materials, tools, and equipment that are in contact with any part of an employee's body shall be handled in a manner that prevents accidental contact with live parts. Such materials and equipment include, but are not limited to, long conductive objects such as ducts, pipes, tubes, conductive hose and rope, metal-lined rulers and scales, steel tapes, pulling lines, metal scaffold parts, structural members, and chains.

When an employee works in a confined space or enclosed space (such as a manhole or vault) that contains exposed live parts, the employee shall use protective shields, barriers, or insulating materials as necessary to avoid contact with these parts. Doors, hinged panels, and the like shall be secured to prevent them from swinging into employees.

Proper body position shall be used at all times for tasks that involve electrical hazards. This includes exposed live parts as well as normal operation of equipment.

1.191 8.0 Establishing and Electrically Safe Work Condition

The process of establishing an electrically safe work condition includes turning off the power, verifying the absence of voltage, and ensuring that the equipment cannot be re-energized while work is being performed. An electrically safe work condition does not exist until all of the six



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steps listed below have been completed. Until then, work is considered energized work and individuals must wear PPE.



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1.191.1 Verification of an Electrically Safe Work Condition

An electrically safe work condition shall be achieved after performing the following steps. Refer also to Appendix G, Electrical LOTO Flow Chart.

Determine all possible sources of electrical supply to the specific equipment. Check applicable up-to-date drawings, diagrams, and identification tags.

After properly interrupting the load current, open the disconnecting device(s) for each source.

Wherever possible, visually verify that all blades of the disconnecting devices are fully open or that draw out-type circuit breakers are withdrawn to the fully disconnected position.

Apply lockout/tagout devices in accordance with the Company's Control of Hazardous Energy (Lockout/Tagout) Program. Also seen in workflow document in appendix and in this section.

Use an adequately rated test instrument to test each phase conductor or circuit part to verify it is de-energized. Test each phase conductor or circuit part both phase-to-phase and phase-to-ground. Before and after each test, determine that the test instrument is operating properly through verification on a known voltage source.

Where the possibility of induced voltages or stored electrical energy exists, ground the phase conductors or circuit parts. Where it could be anticipated that the conductors or circuit parts being de-energized could contact other energized conductors or circuit parts, apply ground connecting devices rated for the available fault duty.

1.192 Lockout/Tagout

In general, each person who could be exposed directly or indirectly to a source of electrical energy shall be involved in the lockout/tagout process. Refer to Establishing an Electrically Safe Work Condition in section 8 as well as Appendix G - Electrical LOTO Flow Chart.

1.192.1 Training

All persons who could be exposed or affected by the lockout/tagout shall be trained to understand the established procedure to control the energy and their responsibility in the execution of the procedure. New or reassigned employees shall also be trained.



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1.192.3 Retraining

Retraining shall be performed:

- When the established procedure is revised
- At intervals not to exceed 3 years

1.192.4 Training Documentation

Content of the training could include one or more of the following: course syllabus, course curriculum, outline, table of contents, or training objectives

- The Company shall document that each employee has received the training.
- The documentation shall be made when the employee demonstrates proficiency in the work practices involved.
- The documentation shall contain the content of the training, each employee's name, and the dates of the training.

1.193 Arc Flash Risk Assessment.

EH&S shall verify that an arc flash risk assessment has been performed by third party consultant and shall include the following information:

- Determine if an arc flash hazard exists. If an arc flash hazard exists, the risk assessment shall determine:
 - Appropriate safety-related work practices
 - The arc flash boundary
 - The PPE to be used within the arc flash boundary
- Arc Flash Risk Assessment shall be updated when a major modification or renovation takes place. It shall be reviewed periodically, at intervals not to exceed 5 years, to account for changes in the electrical distribution system that could affect the results of the arc flash risk assessment.
- The results of the arc flash risk assessment shall be documented.



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1.194 Equipment Labeling

Electrical equipment such as switchboards, panelboards, industrial control panels, meter socket enclosures, and motor control centers that are in other than dwelling units and that are likely to require examination, adjustment, servicing, or maintenance while energized shall be field-marked with an Arc Flash / Shock Hazard Label containing all the following information:

- Nominal system voltage
- Arc flash boundary
- At least one of the following:
 - Available incident energy and the corresponding working distance
 - Minimum arc rating of clothing
 - Site-specific level of PPE

The method of calculating and the data to support the information for the Arc Flash / Shock Hazard Label shall be documented. Where the review of the arc flash hazard risk assessment identifies a change that renders the label inaccurate, the label shall be updated. The owner of the electrical equipment shall be responsible for the documentation, installation, and maintenance of the field-marked Arc Flash / Shock Hazard Label.

1.195 Personal Protective Equipment (PPE)

Employees working in areas where electrical hazards are present shall be provided with, and shall use, protective equipment that is designed and constructed for the specific body part to be protected and for the work to be performed.

1.195.1 General PPE Requirements

ESS will provide electrical protective equipment and clothing based on the level of exposure to electrical hazard faced by employees and that is required by this program, at no cost to employees. Such equipment may include up to 40 calorie rated arc flash apparel, eye protection, head protection, hand protection, insulated footwear, and face shields where necessary. (note: the Company does not perform tasks greater than 40 cal/cm²).

- All protective equipment shall be maintained in a safe, reliable condition by the employee to whom it is issued.



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- Employees shall wear nonconductive head protection whenever there is a danger of head injury from electric shock or burns due to contact with live parts or from flying objects resulting from an electrical explosion.
- Employees shall wear nonconductive and arc rated protection for the face, neck, and chin whenever there is danger of injury from exposure to shock, electric arcs or flashes or from flying objects resulting from an electrical explosion.
- Employees shall wear protective equipment for the eyes whenever there is a danger of injury from electric arcs, flashes, or from flying objects resulting from an electrical explosion.
- Employees shall wear rubber insulating gloves with leather protectors where there is danger of hand and arm injury due to contact with live parts or possible exposure to arc flash burn.
- Face shields without an arc rating will not be used for electrical work. Safety glasses or goggles must always be worn underneath face shields.
- Additional illumination may be needed when using tinted face shields as protection during electrical work.
- Before each use visually inspect and perform an air test on the gloves. Electrically test gloves every 6 months. This will require sending them offsite.
- Where insulated footwear is used as protection against step and touch potential, dielectric footwear shall be required. (Insulated soles shall not be used as primary electrical protection.) Heavy-duty leather footwear shall be used in all exposures greater than 4 cal/cm².

1.195.2 Flash Protection Boundary

Personal protective equipment shall be provided to and used by all employees working within the "Arc Flash Protection Boundary".

The approach distance must be calculated using an appropriate method from NFPA 70E or the Institute of Electrical and Electronics Engineers, Inc. (IEEE).

The specific protective equipment to be worn within the Flash Protection Boundary can be determined by the following method:

- Complete a detailed arc flash hazard analysis under engineering supervision that determines the incident exposure energy of each employee. Appropriate protective clothing can then be selected based on the calculated exposure level.



<p>VRG Controls LLC Electrical Safety Program - NFPA 70E and NFPA 70B</p>

1.195.3 Arc Resistant Apparel & Under Layers

Factors in Selection of Protective Clothing. Clothing and equipment that provide workers protection from shock and arc flash hazards shall be used. If arc-rated clothing is required, it shall cover associated parts of the body as well as all flammable apparel while allowing movement and visibility. Refer to Appendix H - Guidance on Selection of Arc-Rated Clothing and Other PPE, for additional information on proper selection of Arc Rated clothing.

- Arc rated apparel shall be visually inspected before each use. Arc rated apparel that is contaminated or damaged shall not be used. Protective items that become contaminated with grease, oil, flammable liquids, or combustible liquids shall not be used.
- Clothing and Other Apparel Not Permitted:
 - Clothing and other apparel (such as hard hat liners and hair or beard nets) made from materials that are not arc rated shall not be permitted to be worn.
- The garment manufacturer's instructions for care and maintenance of arc rated apparel shall be followed.
- When arc rated apparel is worn to protect an employee, it shall cover all ignitable clothing and allow for movement and visibility.
- Arc Resistant (AR) apparel must cover potentially exposed areas as completely as possible. Arc rated shirt sleeves must be fastened and AR shirts/jackets must be closed at the neck.
- Non-melting, flammable garments (i.e. cotton, wool, rayon, silk, or blends of these materials) may be used as under layers beneath AR apparel.
- Meltable fibers such as acetate, nylon, polyester, polypropylene, and spandex shall not be permitted in fabric under layers next to the skin. (An incidental amount of elastic used on non-melting fabric underwear or socks shall be permitted).
- Arc rated garments worn as outer layers (i.e. jackets, safety vests, or rainwear) must also be made from arc rated material or removed.
- Flash suits must permit easy and rapid removal by the user.
- Tight-fitting clothes shall be avoided.



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- Head Protection:
 - An arc-rated balaclava shall be used with an arc-rated face shield when the back of the head is within the arc flash boundary. An arc-rated hood shall be permitted to be used instead of an arc-rated face shield and balaclava.
 - An arc-rated hood shall be used when the anticipated incident energy exposure exceeds 12 cal/cm².
- Hand Protection:
 - Heavy-duty leather gloves or arc-rated gloves shall be worn where required for arc flash protection.
 - Heavy-duty leather gloves are made entirely of leather with minimum thickness of 0.03 in. (0.7 mm) and are unlined or lined with nonflammable, nonmelting fabrics. Heavy-duty leather gloves meeting this requirement have been shown to have ATPV values in excess of 10 cal/cm².
 - Where insulating rubber gloves are used for shock protection, leather protectors shall be worn over the rubber gloves.
 - The leather protectors worn over rubber insulating gloves provide additional arc flash protection for the hands for arc flash protection exposure.
- Foot Protection:
 - Heavy-duty leather footwear provides some arc flash protection to the feet, and shall be used in all exposures greater than 4 cal/cm².

1.195.4 Rubber Insulating Equipment

Insulating gloves, sleeves and equipment are critical PPE for electrical work on or near exposed energized parts.

Rubber insulating equipment includes protective devices such as gloves, sleeves, blankets, and matting.

Insulating equipment must be inspected for damage before each day's use and immediately following any incident that could have caused damage.

An air test must be performed on rubber insulating gloves before each use.

Insulating equipment found to have defects that might affect its insulating properties must be removed from service until testing indicates that it is acceptable for continued use.



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Rubber insulating equipment must be tested according to the schedule contained in Appendix I - Inspection Schedule for Rubber Insulated Equipment.

Rubber insulating equipment must be stored in an area protected from light, temperature extremes, excessive humidity, ozone (commonly created by transformers and electrical equipment), and other substances and conditions that may cause damage.

No repairs to rubber insulating equipment shall be attempted.

Where insulating rubber gloves are used for shock protection, leather protectors shall be worn over the rubber gloves.

1.195.5 Insulated Tools and Materials

Only insulated tools and equipment shall be used within the Restricted Approach Boundary of exposed energized parts.

Insulated tools shall be rated for the voltages on which they are used.

Insulated tools shall be designed and constructed for the environment to which they are exposed and the manner in which they are used.

Fuse or fuse holder handling equipment, insulated for the circuit voltage, shall be used to remove or install a fuse if the fuse terminals are energized.

Ropes and hand lines used near exposed energized parts shall be nonconductive.

Portable ladders used for electrical work shall have nonconductive side rails.

1.196 Alerting Techniques

Barricades shall be used in conjunction with safety signs to prevent or limit access to work areas containing live parts. Conductive barricades shall not be used where they might cause an electrical hazard. Barricades will be placed at the Limited Approach Boundary or the Arc Flash Protection Boundary, whichever is greater. At no time shall barricades be placed closer than the Limited Approach Boundary.

If signs and barricades do not provide sufficient protection, an attendant will be assigned to warn and protect all personnel and pedestrians. The primary duty of the attendant shall be to keep unqualified persons out of the work area where an electrical hazard exists. The attendant shall remain in the area as long as there is a potential exposure to electrical hazards.



<p style="text-align: center;">VRG Controls LLC Electrical Safety Program - NFPA 70E and NFPA 70B</p>

1.197 Extension Cords

Extension cords must be used for temporary periods only (audio video equipment, drill motors, etc.).

An extension cord is permissible for a temporary period, if:

- Adequate permanent wiring is unavailable and a work order for additional wiring has been submitted
- Power is needed for a short period (less than 30 days) and permanent wiring will not be installed

Extension cords cannot be used when:

- Run through holes in ceilings, walls, or floors
- Routed through doorways, windows, or similar openings
- Attached to building surfaces
- Concealed behind walls, ceilings, or floors
- Spliced or taped
- A potential tripping hazard exists
- Exposed to physical damage
- Supplying power to heaters or motors
- Daisy-chained together (i.e., an extension cord plugged into another extension cord)

1.198 Multiple-Outlet Strips

Multiple outlet strips are NOT INTENDED to replace permanent branch circuit wiring. They are not to be physically attached to building structures (bolted to wall/beam). Under no circumstances will multiple outlet strips be permitted to be "daisy chained" together. Defective multiple outlet strips must be discarded immediately.



VRG Controls LLC Electrical Safety Program - NFPA 70E and NFPA 70B

Exceptions: Outlet strips (Temporary/Relocatable power taps) shall be used in accordance with the manufacturers' intended use in offices and laboratories to provide electrical power to equipment such as personal computers. The outlet strip must meet all of the following criteria:

- The combined load on the outlet strip shall not exceed the rating of the wall outlet
- The outlet strip must be equipped with over current device (circuit protection) designed to protect sensitive equipment from transient voltages
- The outlet strip must be a listed/approved device (i.e., UL, CSA, ETL, TUV, etc.)
- The outlet strip must be allowed by government regulation

1.199 Contractors

Contractors shall, at minimum, comply with all of the Company's electrical safe work practices or the current edition of NFPA 70E.

Safety programs used by contractors must meet or exceed all applicable guidelines of this safety program such as OSHA, NEC, NFPA, and EPA.

Contractors are required to submit copies of their safety programs to the Head, PE&M and/or EH&S upon request.

Qualified Electrical Contractors must complete the Electrical Contractor Qualification Certification, Appendix J, to certify that they are qualified as outlined in NFPA 70E.

Qualified Person Certifications (Appendix J - Electrical Contractor

Qualification Certification) shall be completed by any contractor performing electrical work on Company premises and routed to PE&M and EH&S for record retention.

Qualified Electrical Contractors shall follow the Company's energized electrical work procedures. All live work permits shall be approved by EH&S and then routed to the Head, PE&M for final consent. Completed forms shall be finally routed to EH&S for recordkeeping once work has been completed.

1.200 Inspections

Infrared inspections of energized electrical systems are performed annually. Earthing/grounding inspections are conducted and documented at least annually on all equipment. These inspections include:

Visual check of all grounding and bonding cables and connectors for rust, corrosion, loose connections, etc.



VRG Controls LLC Electrical Safety Program - NFPA 70E and NFPA 70B

1.201 Training

All employees who work on electrical equipment shall be trained in accordance with 18.0 through 18.5. Additional training may be required if their job duties fall outside the scope of this training.

Type of Training: The training required shall be classroom, on-the-job, or a combination of the two. The type and extent of the training provided shall be determined by the risk to the employee.

1.201.1 Emergency Response Training

The emergency response training requirements are to provide the necessary skills for persons exposed to shock hazards to remove a victim from a circuit and then to provide necessary skills to care for the victim until emergency responders arrive.

- Contact Release.
 - Employees exposed to shock hazards shall be trained in methods of safe release of victims from contact with exposed energized electrical conductors or circuit parts. Refresher training shall occur annually.
- First Aid, Emergency Response, and Resuscitation.
 - Employees responsible for responding to medical emergencies shall be trained in first aid and emergency procedures.
 - Employees responsible for responding to medical emergencies shall be trained in cardiopulmonary resuscitation (CPR).
 - Employees responsible for responding to medical emergencies shall be trained in the use of an automated external defibrillator (AED) if the emergency response plan includes the use of this device.
 - Training shall occur at a frequency that satisfies the requirements of the certifying body.
- Training Verification: the Company shall verify at least annually that employee training required by this section (18.1) is current.
- Documentation: There shall be documentation that the training required by this section has occurred.



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1.201.2 Qualified Employee Training

A qualified person shall be trained in the construction and operation of equipment or a specific work method and be trained to identify and avoid the electrical hazards present.

Qualified persons shall also be familiar with the proper use of the special precautionary techniques, PPE, insulating and shielding materials, and insulated tools and test equipment.

Persons permitted to work within the limited approach boundary shall, at a minimum, be additionally trained in all of the following:

- Skills and techniques necessary to distinguish exposed energized electrical conductors and circuit parts from other parts of electrical equipment
- Skills and techniques necessary to determine the nominal voltage of exposed energized electrical conductors and circuit parts
- Approach distances specified in Appendix D, Approach Boundaries to Live Parts for Shock Protection, or the NFPA 70E
- Decision-making process necessary to be able to do the following:
 - Perform the job safety planning.
 - Identify electrical hazards.
 - Assess the associated risk in 7.4 of this document.
 - Select the appropriate risk control methods from the hierarchy of controls, including personal protective equipment.

Tasks that are performed less often than once per year shall require retraining before the performance of the work practices involved.

Through regular supervision or through inspections conducted on at least an annual basis, ensure that each employee is complying with the safety related work practices required by this standard.

Audits of field work to verify compliance must be performed annually and be documented.

1.201.3 Unqualified Persons

Electrical safety awareness training shall be provided to all employees. Training shall occur at frequencies not to exceed 3 years.



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1.201.4 Retraining

Retraining in safety-related work practices and applicable changes in this standard shall be performed at intervals not to exceed three years. An employee shall receive additional training (or retraining) if any of the following conditions exists:

- The supervision or annual inspections indicate that the employee is not complying with the safety-related work practices.
- New technology, new types of equipment, or changes in procedures necessitate the use of safety-related work practices that are different from those that the employee would normally use.
- The employee must use safe work practices that are not normally used during his or her regular job duties.

1.201.5 Training Documentation

The Company shall document that each employee has received the training required by this section. This documentation shall be made when:

- The employee demonstrates proficiency in the work practices involved.
- Shall be maintained for the duration of the employee's employment
- The documentation shall contain the content of the training, each employee's name, and dates of training.

1.202 Test Instruments and Equipment

Employees shall be trained to select an appropriate test instrument and shall demonstrate how to use a device to verify the absence of voltage, including interpreting indications provided by the device. The training shall include information that enables the employee to understand all limitations of each test instrument that might be used.

1.202.1 Testing

Only qualified persons shall perform tasks such as testing, troubleshooting, and voltage measuring within the limited approach boundary of energized electrical conductors or circuit parts operating at 50 volts or more or where an electrical hazard exists.



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1.202.2 Rating

Test instruments, equipment, and their accessories shall be rated for circuits and equipment where they are utilized.

Test instrument accessories, such as probes and leads, are part of the equipment design and should be treated with the same care as the instrument. Making or modifying accessories shall not be made.

The proper CAT and Voltage rating shall be verified for both the meter and associated leads or probes before a meter is to be used on a circuit.

Allowable Personal Electrical Test Equipment: Only equipment that is manufactured by a reputable company shall be used as test equipment within any facility. This equipment shall be constructed so that it has a Category III (CAT III) rating or higher at voltages less than 600 volts AC. (See Meter CAT III and Meter CAT IV in definitions).

1.202.3 Visual Inspection

Test instruments, equipment and all associated test leads, cables, power cords, probes, and connectors shall be visually inspected for external defects and damage before each use. Damaged equipment is to be taken out of service.

1.202.4 Personal Meters

Only meters provided by the Company shall be used. The use of personal meters is prohibited.

1.202.5 Operation Verification

When test instruments are used for testing the absence of voltage on conductors or circuit parts operating at 50 volts or more, the operation of the test instrument shall be verified on a known voltage source before and after an absence of voltage test is performed. (Live Dead Live Test)

1.203 Detailed Method of Procedure

Before work is conducted, the qualified person must fill out the Detailed Method of Procedure (Appendix K). This document is used to ensure that all steps of the process are considered and documented as are any special tools, PPE, and emergency plans that will be used during the process. The Detailed Method of Procedure will also establish how the work being done will effect personnel/equipment. Items in the detailed method of procedure may also be discussed during the job briefing to

eliminate confusion of who is responsible for which task.



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1.204 Electrical Preventive Maintenance (EPM) Program,

The EPM program is to reduce hazards to life and property resulting from the failure or malfunction of electrical systems and equipment. Properly maintained equipment is directly linked to safety as it reduces exposures to electrical hazard as well as ensures electrical equipment will operate properly in case of emergency. The EPM program requires support of top management as funding is needed to execute the program. Maintenance costs can be broken down into two areas, preventative maintenance or breakdown repair. If done properly costs of repairs will require less money to offset the EPM program. The following factors should be considered in the planning of an EPM program.

Personnel Safety: Will an equipment failure endanger or threaten the safety of any personnel? What can be done to ensure personnel safety?

Equipment Loss: Is the installed equipment — both electrical and mechanical — complex or so unique that required repairs would be unusually expensive?

Production Economics: Will breakdown repairs or replacement of failed equipment require extensive downtime? How many production dollars will be lost in the event of an equipment failure? Which equipment is most vital to production?

1.204.1 Responsibility

It is the responsibility of the Head of PE&M to develop an effective EPM program. It is the responsibility of EH&S department to ensure EPM programs are in place or to ensure poorly maintained equipment is a consideration of the overall risk to employees. Electrical equipment deterioration is normal, and equipment failure is inevitable. With an adequate EPM program, equipment failure can be prevented or delayed. If unchecked, deterioration will likely accelerate. Properly administered EPM programs can reduce accidents, save lives, and minimize costly or unplanned shutdowns. Maintenance should be performed only by qualified persons trained in safe maintenance practices with the special considerations necessary to maintain electrical equipment.

1.204.2 Essential Elements of an EPM Program

- Responsible and qualified personnel
- Regularly scheduled inspection, testing, and servicing of equipment
- Survey and analysis of electrical equipment and systems to determine maintenance requirements and priorities



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- Programmed routine inspections and suitable tests
- Accurate analysis of inspection and test reports so that proper corrective measures can be prescribed
- Performance of necessary work
- Concise but complete records

1.204.3 Hierarchy in Planning an Effective EPM Program

Personnel safety is a primary consideration in system design and in establishing safety-related work practices where performing preventative maintenance.

1. Personal Safety
2. Equipment Loss
3. Production Losses

1.204.4 Planning and Developing

Four basic steps should be taken in the planning and development of an EPM program:

1. Compile a listing of all equipment and systems.
2. Determine which equipment and systems are most critical.
3. Develop a system for monitoring.
4. Determine the internal and/or external personnel needed to implement and maintain the EPM program.

Additional information on testing to be performed as well as frequency can be found in the latest edition of NFPA 70B©

1.204.5 Documentation

Documentation of the EPM program shall be maintained, available for EH&S department and affected personnel. Items that may be included in the documentation are listed below. These items may increase or decrease depending on the complexity of the facility involved.

- Copies of all the inspection and testing procedures
- Copies of previous reports
- Single-line diagrams
- Schematic diagrams



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- Records of complete nameplate data
- Vendors' catalogs
- Facility stores' catalogs
- Listings of critical spare parts if available
- Listings of critical parts suppliers and availability to obtain parts

1.204.6 Electrical Equipment Maintenance Intervals

This Table provides, an initial guideline for maintenance intervals for equipment. It should be stressed that environmental or operating conditions of a specific installation should be considered and might dictate a different frequency of maintenance than suggested. (Source NFPA 70B 2016).



VRG Controls LLC
Electrical Safety Program - NFPA 70E and NFPA 70B

Frequency of maintenance for common electrical equipment

Product	Scope of work	Equipment condition assessment		
		Condition 1	Condition 2	Condition 3
All equipment	Infrared thermography	12 months	12 months	6 months
Busways	Visual inspection	60 months	60 months	12 months
	Cleaning	60 months	36 months	12 months
	Lubrication	60 months	36 months	12 months
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
	Special	60 months	36 months	12 months
Fuses	Visual inspection	60 months	36 months	12 months
	Cleaning	60 months	36 months	12 months
	Lubrication	60 months	36 months	12 months
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
Low-voltage ground-fault protection systems	Visual inspection	12 month	12 months	6 months
	Cleaning	60 months	36 months	12 months
	Lubrication		Reserved	
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
Medium-voltage ground-fault protection systems	Visual inspection	12 months	12 months	6 months
	Cleaning	60 months	36 months	12 months
	Lubrication		Reserved	
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
Medium-voltage power circuit breakers	Visual inspection	60 months	36 months	12 months
	Cleaning	60 months	36 months	12 months
	Lubrication	60 months	36 months	12 months
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
Molded-case/insulated-case/low-voltage power circuit breakers	Visual inspection	60 months	36 months	12 months
	Cleaning	60 months	36 months	12 months
	Lubrication	60 months	36 months	12 months
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
Motor control equipment	Visual inspection	60 months	36 months	12 months
	Cleaning	60 months	36 months	12 months
	Lubrication	60 months	36 months	12 months
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months



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Product	Scope of work	Equipment condition assessment		
		Condition 1	Condition 2	Condition 3
Panelboards and switchboards	Visual inspection	60 months	36 months	12 months
	Cleaning	60 months	36 months	12 months
	Lubrication	60 months	36 months	12 months
	Mechanical inspections	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
Power and distribution transformers	Visual inspection	12 months	12 months	6 months
	Cleaning	60 months	36 months	12 months
	Lubrication		Reserved	
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
Power cables	Visual inspection	60 months	36 months	12 months
	Cleaning	60 months	36 months	12 months
	Mechanical servicing	Reserved	Reserved	
	Electrical testing	60 months	36 months	12 months
Protective relays, electromechanical	Visual inspection	36 months	24 months	12 months
	Cleaning	36 months	24 months	12 months
	Lubrication		Reserved	
	Mechanical servicing	36 months	24 months	12 months
	Electrical testing	36 months	24 months	12 months
Protective relays, solid state and microprocessor	Visual inspection	60 months	36 months	12 months
	Cleaning	60 months	36 months	12 months
	Lubrication		Reserved	
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
Substations	Visual inspection	12 months	12 months	6 months
	Cleaning	60 months	36 months	12 months
	Lubrication	60 months	36 months	12 months
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
	Special	60 months	36 months	12 months
	Mechanical checks	60 months	36 months	12 months
Switches	Visual inspection	60 months	36 months	12 months
	Cleaning	60 months	36 months	12 months
	Lubrication	60 months	36 months	12 months
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
Switchgear	Visual inspection	12 months	12 months	6 months
	Cleaning	60 months	36 months	12 months
	Lubrication	60 months	36 months	12 months
	Mechanical servicing	60 months	36 months	12 months
	Electrical testing	60 months	36 months	12 months
	Special	60 months	36 months	12 months
Uninterruptible power supplies	Visual inspection	6 months	3 months	1 month
	Cleaning	12 months	6 month	3 months
	Lubrication		Reserved	
	Mechanical servicing	12 months	6 month	3 months
	Electrical testing	12 months	6 month	3 months
	Special procedures	24 months	24 month	24 months



VRG Controls LLC
Ground Fault Circuit Interrupters (GFCI) Program

17. GROUND FAULT CIRCUIT INTERRUPTERS (GFCI) PROGRAM

1.205 Purpose and Scope

The purpose of this program is to provide regulations required when ground fault circuit interrupters (GFCI) are not in place.

This program applies to all VRG Controls LLC employees involved in electrical work in construction applications.

1.206 Resources

Number	Title
29 CFR 1926 Subpart K	Electrical
Cal/OSHA T8 CCR Subchapter 5	Electrical Safety Orders

1.207 Ground Fault Circuit Interrupters (GFCI) Program

The GFCI is designed to protect people from severe or fatal shocks but because a GFCI detects ground faults, it can also prevent some electrical fires and reduce the severity of other fires by interrupting the flow of electric current. Any equipment that has not met the requirements of this program shall not be made available or permitted to be used by employees. If GFCIs are not used on all 120-volt, single phase 15 and 20-ampere temporary wiring on construction sites with information covered in the Company Electrical Program then the following shall be in place:

1.208 Assured Grounding Conductor

An assured grounding conductor program shall be implemented on sites covering all cord sets, receptacles which are not part of the building or structure, and equipment connected by cord and plug which are available for use or used by employees.

1.209 Competent Person(s)

There shall be a designated competent person who can identify existing and predictable electrical hazards and who has authorization to take prompt corrective measures to eliminate them.



<p>VRG Controls LLC</p> <p>Ground Fault Circuit Interrupters (GFCI) Program</p>

1.210 Inspection

Each cord set, attachment cap, plug and receptacle of cord sets, 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 indications of possible internal damage. Equipment found damaged or defective shall not be used until repaired. Damaged items shall be tagged 'DO NOT USE' and be removed from service until repaired and tested.

1.211 Testing

All equipment grounding conductors shall be tested for continuity and shall be electrically continuous.

Each receptacle and attachment cap or plug shall be tested for correct attachment of the equipment grounding conductors.

The equipment grounding conductor shall be connected to its proper terminal:

- Before each use.
- Before equipment is returned to service following any repairs.
- Before equipment is used such as when a cord has been run over.
- At intervals not to exceed 3 months.
- Cord sets and receptacles which are fixed and not exposed to damage shall be tested at intervals not exceeding 6 months.

Tests performed as required by this program shall be recorded as to the identity of each receptacle, cord set, and cord and plug connected equipment that passed the test and shall indicate the last date tested or interval for which it was tested. This record shall be kept by means of logs, color coding, or other effective means and shall be maintained until replaced by a more current record. These records shall be made available at the job site for inspection by the Assistant Secretary and any affected employees.

1.212 Defective Electrical Equipment

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.



<p>VRG Controls LLC</p> <p>Ergonomics and the Back – Preventing Musculoskeletal Injuries Program</p>
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18. ERGONOMICS AND THE BACK – PREVENTING MUSCULOSKELETAL INJURIES PROGRAM

1.213 Purpose and Scope

The purpose of this program is to provide information on the use of ergonomics to prevent musculoskeletal injuries.

This program applies to all VRG Controls LLC employees.

1.214 Ergonomics and the Back – Preventing Musculoskeletal Injuries

Ergonomics is the scientific study of equipment design for the purpose of improving efficiency, comfort, and safety.

1.215 Ergonomic Risk Factors

Ergonomic risk factors include:

- Repetitive, forceful, or prolonged exertions of hands.
- Frequent or heavy lifting, pushing, pulling, or carrying heavy objects.
- Prolonged awkward postures.

Improper ergonomics can lead to musculoskeletal disorder (MSD)

1.216 Prevention

To help prevent ergonomic injuries:

- Keep body in neutral position.
- Change working position throughout the day.
- Stretch fingers, hands, arms, and torso.
- Periodically stand up and walk around.

Hazard assessments must be performed to determine ergonomic controls.

Immediate injuries to the back can be caused by tearing or straining ligaments.

Minor, repeated damage over time can be as dangerous on your spine as one acute injury.



VRG Controls LLC

Ergonomics and the Back – Preventing Musculoskeletal Injuries Program

1.217 Stretching and Flexing

Regular stretching and flexing exercises play a key role in preventing back injuries and other musculoskeletal disorders. Stretching helps prepare the body for physical activity, improves flexibility, increases circulation to muscles and joints, and reduces the likelihood of strains caused by sudden or awkward movements.

1.217.1 When to Stretch

- Before beginning work or at the start of each shift
- After extended periods of sitting or repetitive activity
- Following breaks or meals
- Anytime muscles feel tight, fatigued, or tense

1.217.2 Guidelines for Safe Stretching

- Move Slowly: Stretch gently and avoid bouncing or jerking motions.
- Hold Each Stretch: Maintain each position for 10–20 seconds without pain.
- Breathe Normally: Avoid holding your breath during stretches.
- Stretch Both Sides: Keep movements balanced and consistent on both sides of the body.
- Stop if Pain Occurs: Stretching should never cause discomfort or sharp pain.

1.217.3 Recommended Stretches

Employees are encouraged to perform the following simple stretches daily:

- Neck Rolls: Slowly roll your head side to side to loosen neck muscles.
- Shoulder Shrugs: Lift and roll shoulders backward and forward.
- Back Extensions: Place hands on hips and gently arch backward to stretch lower back muscles.
- Hamstring Stretch: While standing, place one foot slightly forward and bend at the hips to feel the stretch in the back of the leg.
- Torso Twists: Gently twist side to side at the waist to increase flexibility in the spine.



<p>VRG Controls LLC</p> <p>Ergonomics and the Back – Preventing Musculoskeletal Injuries Program</p>
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1.218 Back Injuries

Back problems account for a large percentage of injuries to employees.

Back injuries cause serious problems such as:

- Highest loss area in Worker's Compensation claims
- Leading cause of disability in employees
- Health problems affecting quality of employee's life

1.218.1 Common Causes of Back Injuries

Improper lifting is one of the most common causes of back problems.

Injuries are usually the result of several combined risk factors including:

- Lifting items that are too heavy
- Repetitive or forceful exertions
- Stretching and lifting
- Lifting and carrying a bulky load
- Twisting at the waist and lifting
- Bad posture
- Reaching above mid chest
- Working or sitting for long periods
- Slips, trips, and falls

Stress occurs when you:

- Bend at the waist
- Lift a heavy object
- Sit leaning forward
- Have a spine degenerating disease

Bending at the waist can add ten times the amount of force to the spine. When you add in the 105 lbs. of the average upper torso, lifting a 10 lb. object puts 1,150 lbs. of pressure on your lower back.

If you were 25 lbs. overweight, the extra weight increases your upper torso to 130 lbs. That would add an additional 250 lbs. of pressure on your back, making it 1,400 lbs. of pressure every time you bend over.



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1.219 Symptoms of Back Injuries

If back injury is suspected, immediately report the injury and have the injury examined.

Signs and symptoms of back injuries include:

- Pain
- Numbness
- Reduced range of motion
- Stiffness
- Weakness
- Popping or grinding in the joints
- Muscle spasms due to stress or tension

1.220 Prevention of Back Injuries

1.220.1 Identification of Hazards

It may be possible to redesign a job to make it less likely to cause injury.

Controls and procedures should be determined to reduce the number of back injuries.

If you have suggestions, share information with you supervisor.

1.220.2 Engineering Controls

Possible engineering controls include:

- Mechanical lifting aids
- Adjustable worktables
- Storing materials
- Designing lighter materials



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1.220.3 Administrative Controls

Administrative controls include:

- Training on ergonomic principles
- Placing the right person for the job
- Issuing changes

1.220.4 Personal Protective Equipment (PPE)

PPE is not as effective at preventing back injuries as engineering controls.

1.220.5 Prevention

Reduce back injuries by:

- Staying in good shape
- Eliminating negative lifestyles by reducing stress and tension
- Asking for help
- Releasing stress to back by moving and stretching
- Transferring weight for support
- Practicing lumbar stabilization
- Avoiding extreme force when using tools
- Pushing rather than pulling loads

1.220.6 Proper Lifting Techniques

Proper lifting techniques:

- Position yourself close to the load.
- Spread feet a shoulder's width apart.
- Keep knees bent, back straight.
- Tighten the stomach muscles.
- Lift using the large muscles of the legs.
- Avoid twisting your body.



VRG Controls LLC
Ergonomics and the Back – Preventing Musculoskeletal Injuries Program

- Keep object within safe lifting zone which is between waist and shoulders.



**VRG Controls LLC
Fall Protection Program**

19. FALL PROTECTION PROGRAM

1.221 Purpose and Scope

The purpose of this program is to provide specific requirements and safety principles to ensure that work at heights is conducted safely and effectively.

This program applies to all VRG Controls LLC employees exposed to working at heights.

1.222 Resources

Number	Title
29 CFR 1926 Subpart M	Fall Protection
29 CFR 1910 Subpart D	Walking-Working Surfaces
29 CFR 1917 Subpart F	Terminal Facilities - Guarding of Edges
29 CFR 1915 Subpart E	Scaffolds, Ladders, and Other Working Surfaces - Guarding of Deck Openings and Edges
29 CFR 1926 Subpart R	Steel Erection-Fall Protection
Cal/OSHA T8 CCR Subchapter 7	General Industry Safety Orders - Injury and Illness Prevention Program
Cal/OSHA T8 CCR Subchapter 4	Construction Safety Orders - Fall Protection

1.223 Definitions

Acronym/Term	Definition
Competent Employee / Person	A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

1.224 Fall Protection Program

The standards for regulating fall protection systems and procedures are intended to prevent employees from falling off, onto, or through working levels and to protect employees from falling objects. Fall protection requirements under the regulations require considerable planning and preparation.



VRG Controls LLC Fall Protection Program

1.225 Roles and Responsibilities

A competent person shall be assigned to act as the safety monitoring system. Responsibilities are to:

- Recognize fall hazards.
- Warn employees if they are unaware of a fall hazard or are acting in an unsafe manner.
- Be on same working surface and in visual sight.
- Stay close enough for verbal communication.
- Not have other assignments that would take monitors attention from the monitoring function.

Mechanical equipment must not be used or stored in areas where safety monitoring systems are being used to monitor employees engaged in roofing operations on low-slope roofs. No employee other than an employee engaged in roofing work [on low-sloped roofs] or an employee covered by a fall protection plan shall be allowed in an area where an employee is being protected by a safety monitoring system. Each employee working in a controlled access zone shall be directed to comply promptly with fall hazard warnings from safety monitors.

1.226 Training

Training shall be provided for each employee who might be exposed to fall hazards. Upon first employment, they shall be given instructions regarding the hazards and safety precautions applicable to the type of work in question and directed to read the OSHA Code of Safe Practices. Training must enable each employee to recognize the hazards of falling and the procedures to follow to minimize these hazards. Records showing participants, training dates, and signatures of instructors shall be maintained.

Only qualified persons are permitted to operate equipment and machinery. Where employees are subject to known job site hazards, such as, flammable liquids and gases, poisons, caustics, harmful plants and animals, toxic materials, confined spaces, falls, etc., they shall be instructed in the recognition of the hazard, in the procedures for protecting themselves from injury, and in the first aid procedure in the event of injury.

Re-training shall be provided when there are deficiencies in training, inadequacies in an affected employee's knowledge or use of fall protection systems or equipment, when work practices are changed, or when fall protection equipment is modified.



VRG Controls LLC Fall Protection Program

1.227 Fall Protection Requirement

Fall protection is required whenever employees are potentially exposed to falls from heights that exceed applicable regulatory thresholds. Guard rails, safety nets, or personal or fall arrest systems should be used. Applicable regulatory thresholds include:

- General Industry 1910.28(b)(1)(i) - Protection for wall openings and holes. Every wall opening from which there is a drop of more than 4 feet shall be guarded.
- Construction Industry 1926.501(b)(1) - Unprotected sides and edges. Each employee on a walking/working surface (horizontal and vertical surface) with an unprotected side or edge which is 6 feet or more above a lower level shall be protected from falling by the use of guardrail systems, safety net systems, or personal fall arrest systems.
- Marine Terminals 1917.112(b)(1) - Guardrails shall be provided at locations where employees are exposed to floor or wall openings or waterside edges, including bridges or gangway-like structures leading to pilings or vessel mooring or berthing installations, which present a hazard of falling more than 4 feet or into the water.
- Shipyard Industry 1915.73(d) - When employees are exposed to unguarded edges of decks, platforms, flats, and similar flat surfaces, more than 5 feet above a solid surface, the edges shall be guarded by adequate guardrails.
- Steel Erection 1926.760(a)(1) - Each employee engaged in a steel erection activity who is on a walking/working surface with an unprotected side or edge more than 15 feet above a lower level shall be protected from fall hazards by guardrail systems, safety net systems, personal fall arrest systems, positioning device systems, or fall restraint systems.
- Cal/OSHA Construction CCR 1670(a) - ANSI Approved personal fall arrest, personal fall restraint or positioning systems shall be worn by those employees whose work exposes them to falling in excess of 7 1/2 feet from the perimeter of a structure, unprotected sides and edges, leading edges, through shaftways and openings, sloped roof surfaces steeper than 7:12, or other sloped surfaces steeper than 40 degrees not otherwise adequately protected.

1.228 Incidents

Incidents shall be investigated, and corrective actions must be developed and implemented. The investigation shall look at the fall protection plan to see if any updates are needed to prevent recurrence.



VRG Controls LLC Fall Protection Program

1.229 Fall Protection Plan

100% tie off is required.

A fall protection plan shall be prepared by a qualified person and developed specifically for the site (leading edge work, precast concrete work, or residential construction) where the work is being performed. The plan shall be maintained up to date and include the minimum qualifications of the person(s) preparing the plan by identifying that person by name or title.

1.230 Rescue Plan

Equipment and services for prompt rescue of fallen workers, including self-rescue, shall be available before elevated work begins. Local fire departments may not have the means to perform safe and efficient rescue so do not assume they are able to do so.

1.231 Fall Arrest Systems

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.

1.231.1 Personal Fall Arrest Systems

Personal fall arrest systems, when stopping a fall, shall:

- Limit maximum arresting force on an employee to 1,800 pounds when used with a body harness.
- Be rigged such that an employee can neither free fall more than 6 feet, nor contact any lower level, and, where practicable, the anchor end of the lanyard shall be secured at a level not lower than the employee's waist.
- Bring an employee to a complete stop and limit maximum deceleration distance an employee travels to 3.5 feet.
- Have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of 6 feet, or the free fall distance permitted by the system, whichever is less.



VRG Controls LLC Fall Protection Program

1.231.2 Anchorages

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

- As part of a complete personal fall arrest system which maintains a safety factor of at least two.
- Under the supervision of a qualified person.

1.231.3 Positioning Systems

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

- Positioning devices shall be rigged such that an employee cannot free fall more than 2 feet.
- Position devices shall be inspected prior to each use for wear, damage, and other deterioration, and defective components shall be removed from service.
- The use of non-locking snaphooks shall be prohibited after January 1, 1998.
- Anchorage points for positioning device systems shall be capable of supporting two times the intended load or 3,000 pounds, whichever is greater.

1.231.4 Fall Protection Equipment

All safety belts, harnesses, and lanyards placed in service or purchased on or before February 1, 1997, shall be labeled as meeting the requirements contained in ANSI A10.14-1975, Requirements for Safety Belts, Harnesses, Lanyards, Lifelines and Drop Lines for Construction and Industrial Use.

All personal fall arrest, personal fall restraint, and positioning device systems purchased or placed in service after February 1, 1997, shall be labeled as meeting the requirements contained in ANSI A10.14-1991 American National Standard for Construction and Demolition Use, or ANSI Z359.1-1992 American National Standard Safety Requirements for Personal Fall Arrest Systems, Subsystems and Components.

When purchasing equipment and raw materials for use in fall protection systems, applicable standards and requirements shall be met.



<p style="text-align: center;">VRG Controls LLC Fall Protection Program</p>

1.232 Access Control

Access to dangerous areas where safety monitoring systems are in place shall be controlled. When used to control access to areas where leading edge and other operations are taking place, the controlled access zone shall be defined by a control line or by any other means that restricts access. Signs shall be posted to warn unauthorized employees to stay out of the controlled access zone.

1.233 Guardrails

A standard guardrail shall consist of top rail, mid-rail or equivalent protection, and posts, and shall have a vertical height within the range of 42 inches to 45 inches from the upper surface of the top rail to the floor, platform, runway, or ramp level.



VRG Controls LLC Fatigue Management Program
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20. FATIGUE MANAGEMENT PROGRAM

1.234 Purpose and Scope

The purpose of this program is to define the minimum requirements established regarding managing employee fatigue and ensure that mental or physical fatigue does not lead to injury to personnel or damage to property.

This program applies to all VRG Controls LLC employees.

1.235 Fatigue Management Program

Fatigue can significantly affect the ability to communicate clearly, work safely and productively, and react optimally in an emergency. Fatigue and related consequences such as unintentionally falling asleep can be significant factors in incidents. Even without incidents occurring, fatigue impairment can significantly impact efficiency and productivity. One of the critical consequences of fatigue is that the ability to assess fitness for duty becomes impaired. This means employees may not be fully aware of their fatigue related impairment, which can make communicating about potential issues more difficult.

Workers must never operate motor vehicles and/or heavy equipment while excessively fatigued.

1.236 Training

Employees shall be trained on the components of this fatigue management program.

Initial and annual training shall be provided on how to recognize fatigue, how to control fatigue through appropriate work and personal habits and reporting of fatigue to supervision.

1.237 Work Hour Limitations

The following work hour limitations have been set to control job rotation schedules to control fatigue, allow for sufficient sleep, and increase mental fitness to control employee turnover and absenteeism:

- A planned work shift not to exceed 12 hours.
- Normal work schedules shall not exceed 28 consecutive days.



VRG Controls LLC Fatigue Management Program
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1.238 Ergonomic Equipment

Equipment and workstations must be evaluated based on ergonomic principles to ensure that work tasks are designed to control employee fatigue and increase mental alertness.

Ergonomic equipment shall be used to improve workstation conditions such as anti-fatigue mats for standing, lift assist devices for repetitive lifting, proper lighting, control of temperature, and other ergonomic devices as deemed appropriate.

1.239 Work Tasks

Work tasks and schedules to control fatigue that affect amount of sleep, timing, and quality of sleep each day, amount of time since last sleep period, time of day, and workload and time on task shall be analyzed and evaluated periodically.

1.240 Rest Breaks

Rest breaks shall be provided to control fatigue and increase mental fitness.

Rest breaks are required, sleeping in areas such as service trucks, base camps, hotels, trailers, rig/platform rest and sleeping areas.

Chairs shall be provided for employees to sit periodically and will provide periodic rest breaks for personnel.

1.241 Reporting

Employees are expected to be fit for duty. Employees in safety critical positions shall report fatigue / tiredness and lack of mental acuity to supervision. Supervisors shall make safety critical decisions and take appropriate actions to prevent loss.

1.242 Drug Use

Employees shall not chronically use over the counter or prescription drugs to increase mental alertness. Employees shall not take any substance known to increase fatigue, including fatigue that sets in after the effects of the drug wear off.

1.243 Review

The Fatigue Management Program shall undergo periodic assessments of its effectiveness with a continuous improvement plan created to close any gaps.

21. FIRST AID PROGRAM



**VRG Controls LLC
First Aid Program**

1.244 Purpose and Scope

The purpose of this program is to ensure the safety of employees and describe a framework for administering first aid.

This program applies to all VRG Controls LLC employees.

1.245 Resources

Number	Title
29 CFR 1910 Subpart K	Medical and First Aid
29 CFR 1926 Subpart D	Occupational Health and Environmental Controls
Cal/OSHA T8 Subchapter 4	Construction Safety Orders – Emergency Medical Services
Cal/OSHA T8 Subchapter 4	General Industry Safety Orders-Personal Safety Services and Safeguards
CMS-FM-0026	First Aid Kit Inspection Form

1.246 First Aid

Medical facilities will be made available where possible. In the absence of an infirmary, clinic, or hospital in near proximity to the workplace, a person or persons shall be available and adequately trained to render first aid.

1.247 Training

A person who has a valid certificate in first-aid training from the American Red Cross or equivalent that can be verified by documentary evidence shall be available at the worksite to render first aid.

1.248 First Aid Supplies

The first aid equipment and supplies shall be determined by the potential occupational injuries and illnesses of personnel. First aid supplies shall be easily accessible when required.

The items and amounts of each item needed on site will depend on the following variables:

- Size of work force
- Type of work
- Availability of medical services
- Types of injuries and illnesses
- Scope and environment of the work location



VRG Controls LLC First Aid Program

Adequate first aid supplies shall be available and periodically reassessed for the demand for supplies with inventories adjusted.

First aid kits shall be placed in a weatherproof container with individual sealed packages of each type of item. See the Appendix for suggested contents of a first aid kit.

For construction operations, first aid kits shall be checked before being sent out to each job and at least weekly to ensure that the expended items are replaced.

1.249 Location

Where there is a first aid facility provided, it shall be located as close as possible to the main work area to provide prompt first aid care to injured and ill employees. Distance should not hamper the prompt reporting of minor injuries. See the Appendix for suggested first aid supplies.

Location of the first aid facility shall also be near water and sanitary sewer lines. The first aid facility shall be easily accessible to ambulance service.

The first aid facility should be designed to eliminate noise, vibration, and other disturbances insofar as is practical.

1.250 Transport

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.

If an ambulance service is not readily available to the work site, or if travel conditions are not normal, other transportation must be available that:

- Is suitable, considering the distance to be travelled and the types of acute illnesses or injuries that may occur at the work site
- Protects occupants from the weather
- Has systems that allow the occupants to communicate with the health care facility to which the injured or ill worker is being taken
- Can accommodate a stretcher and an accompanying person if required to



VRG Controls LLC First Aid Program

1.251 Emergency Eye Washing

Where the eyes or body of any person may be exposed to injurious corrosive materials, suitable facilities shall be provided within the work area.

1.252 Emergency Phone Numbers

In areas where 911 is not available, the telephone numbers of the physicians, hospitals, or ambulances shall be conspicuously posted. The site Safety Coordinator is responsible for posting these telephone numbers.

1.253 Documentation

The company must keep a record of all circumstances respecting an accident as described by the injured worker, the date and time of its occurrence, the names of witnesses, the nature and exact location of the injuries to the worker and the date, time, and nature of each first aid treatment given.



**VRG Controls LLC
First Aid Program**

Appendix 5 Suggested First Aid Kit Contents

First Aid Supply	Minimum Quantity		Minimum Size or Volume	
	Class A Kits	Class B Kit	(US)	(metric)
Adhesive Bandage	16	50	1 x 3 in.	2.5 x 7.5 cm
Adhesive Tape	1	2	2.5 yd (total)	2.3 m
Antibiotic Application	10	25	1/57 oz	0.5 g
Antiseptic	10	50	1/57 oz	0.5 g
Breathing Barrier	1	1	N/A	N/A
Burn Dressing (gel soaked)	1	2	4 x 4 in.	10 x 10 cm
Burn Treatment	10	25	1/32 oz	0.9 g
Cold Pack	1	2	4 x 5 in.	10 x 12.5 cm
Eye Covering, with attachment	2	2	2.9 sq. in.	19 sq. cm
Eye/Skin Wash	1	0	1 fl. oz total	29.6 ml
	0	1	4 fl. oz total	118.3 ml
Foil Blanket	1	1	52 x 84 in.	132 x 213 cm
First Aid Guide	1	1	N/A	N/A
Hand Sanitizer	10	20	1/32 oz	0.9 g
Medical Exam Gloves	2 pair	4 pair	N/A	N/A
Roller Bandage	1	2	2 in. x 4 yd	5 cm x 3.66 m
	0	1	4 in. x 4 yd	10 cm x 3.66 m
Scissors	1	1	N/A	N/A
Splint	0	1	4.0 x 4 yd	10.2 x 61 cm



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Sterile Pad	2	4	3 x 3 in.	7.5 x 7.5 cm
Tourniquet	0	1	1.5 in. (width)	3.8 cm (width)
Trauma Pad	2	4	5 x 9 in.	12.7 x 22.9 cm
Triangular Bandage	1	2	40 x 40 x 56 in.	101 x 101 x 142 cm



VRG Controls LLC First Aid Program

Appendix 6 First Aid Kit Inspection Form

General Information			
Inspector Name:		Inspection Date:	
Kit Location:			
Required First Aid Items	Stocked	Needs Restocking	
1. Gauze pads			
2. Large gauze pads			
3. Adhesive bandages (Band-Aids)			
4. Gauze roller bandages			
5. Triangular bandages			
6. Wound cleaning agent			
7. Scissors			
8. Blanket			
9. Tweezers			
10. Adhesive tape			



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11.	Latex gloves		
12.	Resuscitation bag / pocket mask		
13.	Elastic wraps		
14.	Splint		
15.	Ibuprofen		
16.	Saline solution		
17.	Directions for requesting emergency assistance		
Signatures			
Employee Signature:		Date:	



VRG Controls LLC Fit for Duty Program
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22. FIT FOR DUTY PROGRAM

1.254 Purpose and Scope

The purpose of this program is to ensure employees are fit to perform their assigned tasks safely and reliably.

This program applies to all VRG Controls LLC employees.

1.255 Fit for Duty Program

Employees shall be physically capable of performing their assigned job functions.

Depending on the job function, pre-employment physicals should be included in the hiring process, also when changing into certain job functions and different environments.

Employees shall be assessed and monitored to confirm fitness to wear required personal protective equipment (PPE) for their job function.

Employees must be trained to safely perform their assigned tasks.

Employees must follow safe work procedures identified in the Company health and safety program.

Ensure that workers are educated on the company's Fit For Duty policies and procedures.

If an employee is determined to be unfit for duty, the company has a process in place to provide reasonable assistance to the employee. This may include, but is not limited to, transferring the worker to another role, providing a leave of absence, Employee Assistance Programs, etc.

1.256 Drug and Alcohol Screening

Drug and alcohol screening shall be conducted for pre-employment, post-accident, and randomly as required by Department of Transportation (DOT) regulations or site requirements.

Employees shall report all medications they are taking. Over-the-counter medications such as allergy or cold and flu medications could also impair one's ability to perform safely and shall also be reported to their supervisor.

Employee's activities and behaviors shall be monitored to determine if removal from the work site is necessary.



<p style="text-align: center;">VRG Controls LLC Fit for Duty Program</p>
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1.257 Fatigue

Employees are responsible for ensuring they are physically and mentally fit to perform their job functions safely. If an employee is not able to perform their duties safely due to their physical or mental state, they are responsible for notifying their supervisor. Employees shall take responsibility for their own safety as well as not report to work in a condition as to endanger the safety of their fellow workers.



VRG Controls LLC
Forklifts & Powered Industrial Trucks Safety Program

23. FORKLIFTS & POWERED INDUSTRIAL TRUCKS SAFETY PROGRAM

1.258 Purpose and Scope

The purpose of this program is to provide safety procedures for forklifts and powered industrial trucks to maintain a safe workplace for employees and prevent or mitigate incidents.

This program applies to all VRG Controls LLC employees that work with or around forklifts or powered industrial trucks.

1.259 Resources

Number	Title
29 CFR 1910 Subpart N	Materials Handling and Storage
29 CFR 1926 Subpart C	General Safety and Health Provisions
Cal/OSHA T8 CCR Subchapter 7	General Industry Safety Orders
CMS-FM-0027	Forklift/Powered Industrial Truck Inspection Checklist

1.260 Definitions

Acronym/Term	Definition
Competent Employee / Person	A person who can identify existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.
Free Rigging	The direct attachment to or placement of rigging equipment (slings, shackles, rings, etc.) onto the tines of a forklift/powered industrial truck for a below-the-forks lift. This type of lift does not use an approved lifting attachment.
Rated Capacity	The maximum working load that a forklift/powered industrial truck is designed, by the manufacturer, to carry at a specified load height.
Truck	Forklift or any powered industrial truck.
Unattended Forklift	When the forklift operator is 25 feet or more away from the forklift even if it remains in view or whenever the forklift operator leaves the forklift, and it is not in view.



<p>VRG Controls LLC</p> <p>Forklifts & Powered Industrial Trucks Safety Program</p>

1.261 Forklifts and Powered Industrial Trucks Program

A forklift or powered industrial truck is a powerful tool that allows one person to precisely lift and place large heavy loads with little effort. Using a tool such as a forklift, cart, or hand truck instead of lifting and carrying items by hand can reduce the risk of back injury. However, there is a greater risk of injury or death when an operator has not been trained properly, is not familiar with the way a particular forklift operates, operates carelessly, or operates a malfunctioning forklift.

1.262 Operation Qualification

Powered industrial truck operators shall be competent to operate the equipment safely. A competent operator has the necessary education / knowledge, training, and experience to safely perform the job.

1.263 Training

Training shall consist of a combination of formal instruction (e.g., lecture, discussion, interactive computer learning, video, written material), practical training (demonstrations performed by the trainer and practical exercises performed by the trainee), and evaluation of the operator's performance in the workplace. Practical training involves instructor demonstrations and trainee exercises.

All operator training and evaluation shall be conducted by persons who have the knowledge, training, and experience to train powered industrial truck operators and evaluate their competence. The training content shall include forklift operating instructions, use of controls, capacity, and load stability as a minimum.

Refresher training in relevant topics shall be provided to the operator when:

- The operator has been observed to operate the vehicle in an unsafe manner,
- The operator has been involved in an accident or near-miss incident,
- The operator has received an evaluation that reveals that the operator is not operating the truck safely,
- The operator is assigned to drive a different type of truck, or
- A condition in the workplace changes in a manner that could affect safe operation of the truck.



<p>VRG Controls LLC</p> <p>Forklifts & Powered Industrial Trucks Safety Program</p>

Recertification: An evaluation of each powered industrial truck operator's performance shall be conducted at least once every 3 years.

1.264 Trainees

Trainees may operate powered industrial trucks only:

- Under the direct supervision of persons who have the knowledge, training, and experience to train operators and evaluate their competence; and
- Where such operation does not endanger the trainee or other employees.

1.265 Inspection

Industrial trucks shall be examined before being placed in service and shall not be placed in service if the examination shows any condition adversely affecting the safety of the vehicle. Such examination shall be made at least daily. Operators must ensure the equipment is safe prior to operating.

Where industrial trucks are used on around-the-clock basis, they shall be examined after each shift. Defects when found shall be immediately reported and corrected.

1.266 Vehicle Certifications

Name plates indicating the capacity are to be current and visible.

Forklifts approved for use in flammable vapor or dust-hazardous areas shall bear a label or some other identifying mark indicating approval by the testing laboratory.

High-lift rider trucks shall be fitted with an overhead guard unless operating conditions make this impossible. If the type of load presents a hazard, the truck shall be equipped with a vertical load backrest extension.

1.267 Truck Operations

Trucks shall not be driven up to anyone standing in front of a bench or other fixed object.

No person is allowed to stand or pass under the elevated portion of any truck, whether loaded or empty.

Unauthorized personnel shall not be permitted to ride on powered industrial trucks. A safe place to ride shall be provided where riding of trucks is authorized.

Arms or legs shall not be placed between the uprights of the mast or outside the running lines of the truck.



<p>VRG Controls LLC</p> <p>Forklifts & Powered Industrial Trucks Safety Program</p>

Forklifts shall not be used for non-lifting tasks such as pushing or pulling unless recommended by the manufacturer or with the appropriate use of an attachment.

When a powered industrial truck is left unattended, load engaging means shall be fully lowered, controls neutralized, power shut off, and brakes set. Wheels shall be blocked if the truck is parked on an incline.

A powered industrial truck is unattended when the operator is 25 feet or more away from the vehicle which remains in view, or whenever the operator leaves the vehicle, and it is not in view.

A safe distance shall be maintained from the edge of ramps or platforms while on any elevated dock, platform, or freight car. Trucks shall not be used for opening or closing freight doors.

Brakes shall be set with wheel blocks in place to prevent movement of trucks, trailers, or railroad cars while loading or unloading. Fixed jacks may be necessary to support a semitrailer during loading or unloading when the trailer is not coupled to a tractor. The flooring of trucks, trailers, and railroad cars shall be checked for breaks and weakness before they are driven onto.

There shall be sufficient headroom under overhead installations, lights, pipes, sprinkler systems, etc.

An overhead guard shall be used as protection against falling objects. It should be noted that an overhead guard is intended to offer protection from the impact of small packages, boxes, bagged material, etc., representative of the job application, but not to withstand the impact of a falling capacity load.

A load backrest extension shall be used whenever necessary to minimize the possibility of the load or part of it from falling rearward.

Only approved industrial trucks may be used in hazardous locations.

Fire aisles, access to stairways, and fire equipment shall be kept clear.

1.268 Spotters / Banksman

A risk assessment shall be performed to determine when operators will use spotters / banksman. As guidance, the following shall be considered when determining the need for spotters:

- Pedestrian proximity
- Adjacent traffic / simultaneous operations (SIMOPS)
- Lateral, overhead, or other obstructions exist in the work area
- Blind spots in the vicinity (equipment layout, buildings, trucks, vehicles, etc.)



<p>VRG Controls LLC</p> <p>Forklifts & Powered Industrial Trucks Safety Program</p>

- Blind spots due to the type of equipment or the load being carried
- Overall visibility (nighttime, rain, etc.)
- Ease of picking up and setting down the load
- Any other reason deemed necessary by the operator(s) or supervisor.

Spotters shall wear a high visibility vest and be in direct visual contact with the operator at all times. In the event the operator loses visual reference of the banksman / spotter they shall stop all equipment movement until they regain line of sight.

Banksman / spotters shall also have a radio that allows them to speak directly with the operator. The channel to be used shall be determined in the toolbox talk prior to the commencement of the task. The channel shall be one that is free from excessive use.

1.269 Traveling

The wearing of a safety belt is mandatory for the driver of a self-propelled vehicle equipped with a roll-over protective structure as well as for any worker in the vehicle while it is in motion. Any persons other than the driver are prohibited from being on a self-propelled vehicle if it is not equipped with a seat and a belt to accommodate each person.

All traffic regulations shall be observed, including authorized speed limits. A safe distance shall be maintained approximately three truck lengths from the truck ahead, and the truck shall be kept under control at all times.

The right of way shall be yielded to ambulances, fire trucks, or other vehicles in emergency situations.

Other trucks traveling in the same direction at intersections, blind spots, or other dangerous locations shall not be passed.

Drivers are required to slow down and sound the horn at cross aisles and other locations where vision is obstructed. If the load being carried obstructs forward view, the driver shall travel with the load trailing.

Railroad tracks shall be crossed diagonally wherever possible. Parking closer than 8 feet from the center of railroad tracks is prohibited.

Drivers are required to look in the direction of and keep a clear view of the path of travel.

Grades shall be ascended or descended slowly.

When ascending or descending grades more than 10%, loaded trucks shall be driven with the load upgrade.



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On all grades, the load and load engaging means shall be tilted back, if applicable, and raised only as far as necessary to clear the road surface.

Under all travel conditions the truck shall be operated at a speed that will permit it to be brought to a stop in a safe manner.

Stunt driving and horseplay is not permitted.

Drivers are required to slow down for wet and slippery floors.

Dockboards or bridge plates, shall be properly secured before they are driven over. Dockboards or bridge plates shall be driven over carefully and slowly, and their rated capacity never exceeded.

Elevators shall be approached slowly and then entered squarely after the elevator car is properly leveled. Once on the elevator, the controls shall be neutralized, power shut off, and the brakes set.

Motorized hand trucks shall enter elevator or other confined areas with load end forward.

Running over loose objects on the roadway surface shall be avoided.

While negotiating turns, speed shall be reduced to a safe level by means of turning the hand steering wheel in a smooth, sweeping motion. Except when maneuvering at a very low speed, the hand steering wheel shall be turned at a moderate, even rate.

A load engaging means shall be placed under the load as far as possible; the mast shall be carefully tilted backward to stabilize the load.

Extreme care shall be used when tilting the load forward or backward, particularly when high tiering. Tilting forward with load engaging means elevated is prohibited except to pick up a load. An elevated load shall not be tilted forward except when the load is in a deposit position over a rack or stack. When stacking or tiering, only enough backward tilt to stabilize the load shall be used.

The operator shall verify trailer chocks, supports, and dock plates prior to loading or unloading.

1.270 Maintenance

If at any time a powered industrial truck is found to be in need of repair, defective, or in any way unsafe, the truck shall be taken out of service until it has been restored to safe operating condition by authorized personnel.

Repairs to the fuel and ignition systems of industrial trucks which involve fire hazards shall be conducted only in locations designated for such repairs.



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Trucks in need of repairs to the electrical system shall have the battery disconnected prior to such repairs.

All parts of any such industrial truck requiring replacement shall be replaced only by parts equivalent as to safety with those used in the original design.

Industrial trucks shall not be altered so that the relative positions of the various parts are different from what they were when originally received from the manufacturer, nor may they be altered either by the addition of extra parts not provided by the manufacturer or by the elimination of any parts. Additional counterweighting of fork trucks shall not be done unless approved by the truck manufacturer.

Water mufflers shall be filled daily or as frequently as is necessary to prevent depletion of the supply of water below 75% of the filled capacity. Vehicles with mufflers having screens or other parts that may become clogged shall not be operated while such screens or parts are clogged. Any vehicle that emits hazardous sparks or flames from the exhaust system shall immediately be removed from service and not returned to service until the cause for the emission of such sparks and flames has been eliminated.

When the temperature of any part of any truck is found to be in excess of its normal operating temperature, thus creating a hazardous condition, the vehicle shall be removed from service and not returned to service until the cause for such overheating has been eliminated.

Industrial trucks shall be kept in a clean condition, free of lint, excess oil, and grease. Noncombustible agents shall be used for cleaning trucks. Low flash point (below 100 °F.) solvents shall not be used. High flash point (at or above 100 °F.) solvents may be used. Precautions regarding toxicity, ventilation, and fire hazard shall be consonant with the agent or solvent used.

1.271 Refueling Stations

Refueling stations shall be designated, properly equipped, maintained, and provided with instructions for each type of forklift.

1.272 Battery Charging Station Equipment and Precautions

A carboy tilter or siphon for handling electrolyte and a hose with running water to flush and neutralize a spill are required. When charging batteries, acid shall be poured into the water.

Fire protection in accordance with the size of the forklift shall be provided.

Safety shower and eyewash station shall be provided.

Adequate ventilation for dispersal or removal of hydrogen gas shall be provided.



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Non-sparking or coated battery rack supports, and an overhead hoist or equivalent battery-handling equipment shall be provided.

Trucks shall be properly positioned with brakes applied.

Vent caps shall be kept in place and battery compartment or cover shall be open.

Smoking and open flames shall not be permitted, and efforts shall be made to prevent sparks or electric arcs.

Tools and other metallic objects shall be kept clear of the top of uncovered batteries.

1.273 Gasoline and Diesel Precautions

Fuel tanks shall not be filled while the engine is running.

The tank shall not be filled to the top. Spillage of oil or fuel shall be carefully cleaned up or completely evaporated and the fuel tank cap replaced before restarting engine.

Open flames shall not be used for checking gasoline level in fuel tanks.

Trucks shall not be operated with a leak in the fuel system until the leak has been corrected.

An appropriate portable fire extinguisher shall be provided at the refueling station.

1.274 LP Gas (propane) Precautions

LPG-powered trucks shall not be refueled in confined areas where LPG vapors could collect if a leak occurs.

LPG-powered trucks shall not be left near heat sources, stairways, exits, or other egress areas.

When parking LPG-powered trucks for a long period of time, the service valve shall be turned off.

Only trained and authorized personnel are authorized to replace LPG containers.

Spare tanks shall be stored in an outside shelter with adequate ventilation and an appropriate portable fire extinguisher shall be provided.



VRG Controls LLC
Forklifts & Powered Industrial Trucks Safety Program

Appendix 7 Forklift/Powered Industrial Truck Inspection Checklist

General Information (Internal Combustion Engine Truck – Gas / LPG / Diesel Truck)			
Operator Name:		Date.:	
Truck No.:		Hours Worked:	
Hour Meter Start of Shift:		End of Shift:	
Record of Fluid Added			
Battery Water:		Hydraulic Oil:	
Fuel:		Engine Oil:	
Radiator Coolant:		Other:	
Meter Reading			
Drive Hour:		Hoist Hour:	
Safety & Operational Checks			
<i>Mark any defective item with an X and give details below. Have a qualified mechanic correct all problems.</i>			
Engine Off Checks	OK	Maintenance Required	
Leaks – fuel, hydraulic oil, engine oil, or radiator coolant			
Tires – condition and pressure			
Forks, top clip retaining pin and heel – check condition			
Load backrest – securely attached			
Hydraulic hoses, mast chains, cables and stops – check visually			
Overhead guard – attached			
Finger guards – attached			
Propane tank (LP gas truck) – rust corrosion, damage			
Safety warnings – attached (refer to parts manual for location)			
Battery – check water / electrolyte level and charge			



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All engine belts – check visually		
Hydraulic fluid level – check level		
Engine oil level – dipstick		
Transmission fluid level – dipstick		
Engine air cleaner – squeeze rubber dirt trap or check the restriction alarm (if equipped)		
Fuel sedimentor (diesel)		
Radiator coolant – check level		
Operator’s manual – in container		
Nameplate – attached and information matches model, serial number, and attachments		
Seatbelt – functioning smoothly		
Hood latch – adjusted and securely fastened		
Brake fluid – check level		
Engine On Checks	OK	Maintenance Required
Accelerator or direction control pedal – functioning smoothly		
Service brake – functioning smoothly		
Parking brake – functioning smoothly		
Steering operation – functioning smoothly		
Drive control – forward / reverse – functioning smoothly		
Tilt control – forward and back – functioning smoothly		
Hoist and lowering control – functioning smoothly		
Attachment control – operation		
Horn and lights – functioning		
Cab (if equipped) – heater, defroster, wipers - functioning		
Gauges: ammeter, engine oil pressure, hour meter, fuel level, instrument monitors - functioning		

Signatures			
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Inspector Signature:		Date:	
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VRG Controls LLC
Forklifts & Powered Industrial Trucks Safety Program



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General Information (Electric Truck)

Operator Name:		Date.:	
Truck No.:		Hours Worked:	
Hour Meter Start of Shift:		End of Shift:	

Record of Fluid Added

Battery Water:		Hydraulic Oil:	
Fuel:		Engine Oil:	
Radiator Coolant:		Other:	

Meter Reading

Drive Hour:		Hoist Hour:	
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Safety & Operational Checks
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Mark any defective item with an X and give details below. Have a qualified mechanic correct all problems.

Motor Off Checks	OK	Maintenance Required
Leaks – hydraulic oil, battery		
Tires – condition and pressure		
Forks, top clip retaining pin and heel – condition		
Load backrest extension – attached		
Hydraulic hoses, mast chains, cables and stops – check visually		
Finger guards – attached		
Overhead guard – attached		
Safety warnings – attached (refer to parts manual for location)		
Battery – water / electrolyte level and charge		
Hydraulic fluid level – dipstick		
Transmission fluid level – dipstick		
Operator’s manual in container		



VRG Controls LLC Forklifts & Powered Industrial Trucks Safety Program
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Capacity plate attached – information matches model, serial number, and attachments		
Battery restraint system – adjust and fasten		
Operator protection <ul style="list-style-type: none"> • Sit-down truck – seatbelt – functioning smoothly • Man-up truck – fall protection / restraining means – functioning smoothly 		
Brake fluid – check level		
Motor On Checks	OK	Maintenance Required
Accelerator linkage – functioning smoothly		
Parking brake – functioning smoothly		
Service brake – functioning smoothly		
Steering operation – functioning smoothly		
Drive control – forward / reverse – functioning smoothly		
Tilt control – forswear and back – functioning smoothly		
Hoist and lowering control – functioning smoothly		
Attachment control – operation		
Horn – functioning		
Lights and alarms (where present) – functioning		
Hour meter – functioning		
Battery discharge indicator – functioning		
Instrument monitors - functioning		

Signatures			
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Inspector Signature:		Date:	
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VRG Controls LLC
General Waste Management Program

24. GENERAL WASTE MANAGEMENT PROGRAM

1.275 Purpose and Scope

The purpose of this program is to provide general guidelines on an awareness level basis for the proper management, handling, and storage of waste, trash, or garbage to prevent the discharge of pollutants.

This program applies to all VRG Controls LLC employees.

1.276 Resources

Number	Title
29 CFR 1910 Subpart H	Materials Handling, Storage, Use, and Disposal

1.277 Waste Management

The volume of waste is reduced through the use of sound waste minimization practices utilizing a reduce, reuse, and recycle approach.

Affected employees must be informed of site-specific waste management procedures prior to initial assignment and upon any changes in the site-specific waste management plan.

Coordinate with the client to ensure proper disposal of wastes or scrap materials. For example, the company must ensure the client is aware of whether wastes and scrap materials will be taken off site by the company or will be disposed of on the client's site.

The company must assign person(s) accountable for disposition of wastes generated at the work site.

1.278 Assessment

The amount of waste that will be generated shall be estimated prior to work being performed so that the need for containers and waste removal, if necessary, can be determined. If the same wastes or scrap materials are generated regularly, the estimation may be done initially.

1.279 Handling and Storage

Waste materials shall be properly stored and handled to minimize the potential for spills or impact to the environment. During outdoor activities, receptacles shall be covered to prevent dispersion of waste materials and to control the potential for run-off.



VRG Controls LLC General Waste Management Program
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Proper segregation of waste materials is encouraged to ensure opportunities for reuse or recycling. Waste should be recycled whenever possible.

Waste storage areas must be inspected regularly.

Safe practices related to the immediate storage and handling of waste, scrap, or leftover materials must be followed. Gloves and/or other PPE must be worn when handling waste.

1.280 Training

Employees shall be instructed on the proper handling, storage, and disposal of wastes. This may include general instruction on disposal of non-hazardous wastes, trash, or scrap materials. If wastes generated are classified as hazardous, employees shall be trained to ensure proper disposal.

1.281 Construction Activities

When materials are dropped more than 20 feet to any point lying outside the exterior walls of a building, an enclosed chute of wood, or equivalent material, shall be used. An enclosed chute is a slide, closed in on all sides, through which material is moved from a high place to a lower one.

When debris is dropped through holes in the floor without the use of chutes, the area onto which the material is dropped shall be completely enclosed with barricades not less than 42 inches high and not less than 6 feet back from the projected edge of the opening above. Signs warning of the hazard of falling materials shall be posted at each level. Removal shall not be permitted in this lower area until debris handling ceases above.

All scrap lumber, waste material, and rubbish shall be removed from the immediate work area as the work progresses.

Disposal of waste material or debris by burning shall comply with local fire regulations.

All solvent waste, oily rags, and flammable liquids shall be kept in fire resistant covered containers until removed from the worksite.



VRG Controls LLC
Hand and Power Tools Safety Program

25. HAND AND POWER TOOLS SAFETY PROGRAM

1.282 Purpose and Scope

The purpose of this program is to ensure all employees are aware of safe work practices for the use of hand and power tools to prevent or mitigate incidents that may arise from the improper handling of the tools.

This program applies to all VRG Controls LLC employees that use hand and power tools on the job.

1.283 Resources

Number	Title
29 CFR 1926 Subpart I	Tools-Hand and Power
29 CFR 1910 Subpart P	Hand and Portable Powered Tools and Equipment, General
Cal/OSHA T8 CCR Subpart 7	General Industry Safety Standards
29 CFR 1910 Subpart I	Personal Protective Equipment
29 CFR 1910 Subpart J	General Environmental Controls
29 CFR 1926 Subpart C	General Safety and Health Provisions

1.284 Definitions

Acronym/Term	Definition
Point of Operation	The area on a machine where work is actually performed upon the material being processed.
Competent Employee / Person	A person who can identify existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

1.285 Hand and Power Tools Program

Hand tools are tools that are powered manually. Some examples of hand tools include anvils, axes, chisels, files, hammers, hand boring tools, planes, pliers, punches, saws, industrial scissors, screw drivers, tin snips, and wrenches.

Power tools must be equipped with safety switches and guards (if provided by the manufacturer). Types of power tools are determined by their power source: electric, pneumatic, liquid fuel, hydraulic, and powder actuated.



VRG Controls LLC Hand and Power Tools Safety Program

There is a variety of hazards associated with hand and power tools.

A power tool may only be operated by a competent person. A person must not be authorized to operate a power tool until the person has been adequately instructed and trained, and has demonstrated an ability to safely operate it.

1.286 General

The proper tools for the job shall be selected and employees in the proximity of work shall be alerted. Tools shall be used in accordance with manufacturer's recommendations.

Tools must be inspected prior to use.

An effective written or other permanent recording system or log must be immediately available to the operator, and to any other person involved with inspection and maintenance of the tool.

Employees shall be alert to any potential hazards in the area such as flammable or explosive gases, vapors, dusts, etc. that may ignite if a spark is generated by the tool or from work being done with the tool. Use of tools in an area where flammable gases are normally present which may be explosive shall be electrically rated for service in that area.

All power-driven tools shall be stopped when not in use.

Accidental start-ups shall be avoided. Ensure that the switch or other activating mechanism on the tools is in the "off" position before connecting to the power source.

Operators shall be capable of inspecting the tools to ensure safe operating condition prior to use and be aware of the tool's limitations and potential hazards.

Before undertaking any maintenance, repair, or unjamming work in a machine's danger zone, the following safety precautions shall be taken:

- Turn the machine's power supply switch to the off position
- Bring the machine to a complete stop
- Each person exposed to danger locks off all the machine's sources of energy in order to avoid any accidental startup of the machine for the duration of the work.

In areas where there is a danger of contact with moving parts, workers shall comply with the following standards:

- Their clothing shall fit well and have no loose flaps
- Necklaces, bracelets, or rings shall not be worn, with the exception of medical alert bracelets
- Anyone with long hair shall tuck it under a bonnet, a hat, or a hairnet



VRG Controls LLC Hand and Power Tools Safety Program

1.287 Training

Training on the safe and proper use of all hand and power tools shall be provided to employees that operate hand and power tools.

Only authorized, trained employees shall operate hand and power tools.

In-house power tool repairs shall be performed by trained technicians.

1.288 Hand and Power Tool Condition and Location

All hand and power tools and similar equipment, whether furnished by the Company or the employee, shall be maintained in a safe condition.

Hand tools and portable power tools shall be examined regularly and if found defective, be repaired or replaced.

The use of any machinery, tool, material, or equipment which is not in compliance with any applicable requirement of this document is prohibited. Such machine, tool, material, or equipment shall either be identified as unsafe by tagging or locking the controls to render them inoperable or shall be physically removed from its place of operation.

Compressed air shall not be used for cleaning purposes except where reduced to less than 30 psi and then only with effective chip guarding and personal protective equipment (PPE).

Machines designed for a fixed location shall be securely anchored to prevent walking or moving.

1.289 Ergonomics

Awkward postures are postures that strain the neck, shoulders, elbows, wrists, hands or back. Bending, stooping, twisting, and reaching are examples of awkward postures. Tool use and body positioning the work piece will affect your shoulder, elbow, wrist, hand or back posture.

Choose an ergonomic tool requiring the least continuous force and repetitive motion and which can be used without awkward postures. The right tool will help you to minimize pain and fatigue by keeping your neck, shoulders, and back relaxed and your arms at your sides. Avoid raising your shoulders and elbows; relaxed shoulders and elbows are more comfortable and will make it easier to drive downward.

Ergonomic Tools

- A tool becomes “ergonomic” only when it fits the task you are performing, and it fits your hand without causing awkward postures, harmful contact pressures or other safety and health risks.



VRG Controls LLC Hand and Power Tools Safety Program

- If you select and use a tool that does not fit your hand or use the tool in a way it was not intended, you might develop an injury such as carpal tunnel syndrome, tendonitis, or muscle strain.
- These injuries do not happen because of a single event but result from repetitive movements performed over time.

These repetitive movements may result in damage to muscles, tendons, nerves, ligaments, joints, cartilage, spinal discs, or blood vessels.

1.289.1 Selecting and Using the Right Tool

- Make and take the time, before you pick up a tool and begin working to think about the requirements of the job. Do you have the right tools for the job? For optimum safety, find the correct tool or should you rent a specialized tool or hire a professional?
- Select tools designed for the intended and specific use purpose.
- Using a tool for something other than its intended purpose often damages the tool and could cause you pain, discomfort, or injury.
- Assess your workspace to determine which tool will work efficiently and safely in that space.

1.290 Guarding

When power operated tools are designed to accommodate guards, they shall be in place and operable at all times while the tool is in use. The guard shall not be manipulated in such a way that will compromise its integrity or compromise the protection intended. Guarding shall meet the requirements set forth in ANSI B15.1-1953 (R1958), Safety Code for Mechanical Power-Transmission Apparatus.

Belts, gears, shafts, pulleys, sprockets, spindles, drums, fly wheels, chains, or other reciprocating, rotating, or moving parts of equipment shall be guarded if such parts are exposed to contact by employees or otherwise create a hazard.

One or more methods of machine guarding shall be provided to protect the operator and other employees in the machine area from hazards such as those created by point of operation, ingoing nip points, rotating parts, flying chips and sparks. Examples of guarding methods are - barrier guards, two-hand tripping devices, electronic safety devices, etc.

The point of operation of machines whose operation exposes an employee to injury, shall be guarded. The guarding device shall be in conformity with any appropriate standards therefore,



VRG Controls LLC Hand and Power Tools Safety Program

or, in the absence of applicable specific standards, shall be so designed and constructed as to prevent the operator from having any body part in the danger zone during the operating cycle.

Special hand tools for placing and removing material shall be such as to permit easy handling of material without the operator placing a hand in the danger zone. Such tools shall not be in lieu of other guarding required but can only be used to supplement protection provided.

When the periphery of the blades of a fan is less than 7 feet above the floor or working level, the blades shall be guarded. The guard shall have openings no larger than 1/2 inch.

Safety guards for bench and floor stands and cylindrical grinders, where the operator stands in front of the opening, shall be constructed so that the peripheral protecting member can be adjusted to the constantly decreasing diameter of the wheel. The maximum angular exposure above the horizontal plane of the wheel spindle shall never be exceeded, and the distance between the wheel periphery and the adjustable tongue or the end of the peripheral member at the top shall never exceed 1/4 inch.

1.291 Bench and Floor Stands

The angular exposure of the grinding wheel periphery and sides for safety guards used on machines known as bench and floor stands shall not exceed 90 degrees or one-fourth of the periphery. This exposure shall begin at a point not more than 65 degrees above the horizontal plane of the wheel spindle.

1.292 Cylindrical Grinders

The maximum angular exposure of the grinding wheel periphery and sides for safety guards used on cylindrical grinding machines shall not exceed 180 degrees. This exposure shall begin at a point not more than 65 degrees above the horizontal plane of the wheel spindle.

1.293 Positive Accessory Holding Means

All hand-held powered platen sanders, grinders with wheels 2-inch diameter or less, routers, planers, laminate trimmers, nibblers, shears, scroll saws, and jigsaws with blade shanks 1/4 inch wide or less shall be equipped with only a positive "on-off" control.

All hand-held powered drills, tappers, fastener drivers, horizontal, vertical, and angle grinders with wheels greater than 2 inches in diameter, disc sanders, belt sanders, reciprocating saws, saber saws, and other similar operating powered tools shall be equipped with a momentary contact "on-off" control and shall have a lock-on control provided that turnoff can be accomplished by a single motion of the same finger or fingers that turn it on.



<p style="text-align: center;">VRG Controls LLC Hand and Power Tools Safety Program</p>

All other hand-held powered tools, such as circular saws, chain saws, and percussion tools without positive accessory holding means, shall be equipped with a constant pressure switch that will shut off the power when the pressure is released.

1.294 Personal Protective Equipment (PPE)

Employees using hand and power tools and exposed to the hazard of falling, flying, abrasive, and splashing objects, or exposed to harmful dust, fumes, mists vapors, or gases shall be provided with and use particular PPE necessary to protect them from the hazard.



VRG Controls LLC
Hazard Communication Program

26. HAZARD COMMUNICATION PROGRAM

1.295 Purpose and Scope

The purpose of this program is to provide information concerning the hazards associated with the work activities, including but not limited to the health, safety, environmental, and security hazards where employees may be exposed to hazardous substances under normal working conditions or during emergency situations.

This program applies to all VRG Controls LLC employees exposed to hazardous situations.

1.296 Resources

Number	Title
29 CFR 1910 Subpart Z	Toxic and Hazardous Substances – Hazard Communication
Cal/OSHA T8 CCR Subchapter 7	General Industry Safety Orders – Control of Hazardous Substances
CMS-FM-0028	Inventory of Hazardous Chemicals Form

1.297 Hazard Communication Program

Potential hazards include materials that cause fire or explosion or result in injury by inhalation, skin or eye contact, or ingestion. One of the benefits of this program is that employees will know the hazards of the chemicals with which they are working.

1.298 General

A written hazard communication program shall be developed, implemented, and maintained at each workplace. The safety department has full authority for program implementation and execution. The program shall describe how the requirements for labels and other forms of warning, safety data sheets, and employee information and training will be met.

Examples of qualities which make a chemical "hazardous" include but are not limited to:

- Flammable, combustible, and/or explosive
- Corrosive (acids/caustics)
- Irritating/damaging to the eyes and/or skin on contact
- Poses health hazard through inhalation, ingestion, or body contact
- Any known or suspected carcinogen



VRG Controls LLC Hazard Communication Program
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1.299 Training

Employees shall be trained on the dangers of the hazardous chemicals with which they work. This training shall be given when the employee starts work and when a new chemical is used in the workplace. This training shall cover types of hazards (e.g., flammability or carcinogenicity) or specific chemicals. Chemical-specific information shall always be available through labels and safety data sheets (SDS).

On job sites with multiple employers / companies performing work, information concerning hazardous chemicals in use, methods of providing SDSs, methods of precautionary measures to be taken and methods of providing information on labeling systems shall be provided.

Documentation of safety and health training shall include:

- Employee name or another identifier
- Training dates
- Type(s) of training
- Training providers

This documentation shall be maintained for at least one year.

1.300 Inventory of Hazardous Chemicals

An up-to-date working inventory of all chemicals in stock along with all chemicals sent to other destinations shall be compiled. The list may be compiled for the workplace as a whole or for individual work areas.

This inventory shall include:

- The full chemical name or identity that is referenced on the appropriate SDS
- CAS number
- Approximate amount of the chemical with suitable units of measurement
- Physical state
- Responsible party
- Location
- Expiration date if applicable



VRG Controls LLC Hazard Communication Program
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1.301 Non-routine Tasks

Before employees perform non-routine or special tasks that may expose them to hazardous chemicals, they shall be trained on the hazards associated with those chemicals. This training shall be documented and maintained, including how and by whom the employees were trained.

Methods will be documented as how and by whom employees will be informed of the hazards of non-routine tasks (i.e., the cleaning of reactor vessels, etc.) and the hazards associated with chemicals contained in unlabeled pipes in their work areas. Employees will be informed of the hazards by conducting a hazard assessment with their supervisor before work begins.

1.302 Multiple Worksites

If hazardous chemicals are produced, used, or stored in such a way that the employees of other employers may be exposed, the hazard communication program shall include:

- The methods used to share SDS either by posting at the site or through electronic means before work begins.
- The methods used to inform other employers of any precautionary measures that need to be taken to protect employees during the workplace's normal operating conditions and in foreseeable emergencies by conducting hazard assessments before work begins.
- The methods used to inform other employers of the labeling system used in the workplace by toolbox talks before work begins.

The program shall be made available, upon request, to employees, their designated representatives, the OSHA Assistant Secretary, and the OSHA Director. Where employees must travel between workplaces during a work shift (multi job sites), the written program may be kept at a primary job site.



VRG Controls LLC Hazard Communication Program
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1.303 Labeling

Each container of hazardous chemicals shall be labeled with information regarding the hazards of the chemicals, and which, in conjunction with the other information immediately available to employees under the hazard communication program, will provide employees with the specific information regarding the physical and health hazards of the hazardous chemical. Labels shall not be removed or defaced on incoming containers of hazardous chemicals.

Container labels shall contain at least the following information:

- Product identifier
- Signal word
- Hazard statement(s)
- Pictogram(s)
- Precautionary statement(s)
- And name, address, and telephone number of the chemical manufacturer, importer, or other responsible party

Labels or other forms of warning shall be legible, in English, and prominently displayed on the container, or readily available in the work area throughout each work shift. Employees shall not remove or deface labels on incoming containers of hazardous chemicals. If there are employees who speak other languages information in that language may be added to the material presented, as long as the information is presented in English as well.

The label for bulk shipments of hazardous chemicals must be on the immediate container, transmitted with the shipping papers or the bills of lading or, with the agreement of the receiving entity, transmitted by technological or electronic means so that it is immediately available to workers in printed form on the receiving end of the shipment.

For a container less than or equal to 100 ml capacity, the chemical manufacturer, importer, or distributor must include, at a minimum, the following information on the label of the container:

- Product identifier
- Pictogram(s)
- Signal word
- Chemical manufacturer's name and phone number



VRG Controls LLC Hazard Communication Program

- A statement that the full label information for the hazardous chemical is provided on the immediate outer package

For a container less than or equal to 3 ml capacity, where the chemical manufacturer, importer, or distributor can demonstrate that any label interferes with the normal use of the container, no label is required, but the container must bear, at a minimum, the product identifier.

For all small containers, the immediate outer package must include:

- The full label information required for each hazardous chemical in the immediate outer package. The label must not be removed or defaced.
- A statement that the small container(s) inside must be stored in the immediate outer package bearing the complete label when not in use.

1.304 Safety Data Sheets

Safety data sheets (SDS) following the Globally Harmonized System of Classification and Labelling of Chemicals (GHS) standard are required for each hazardous chemical used in the workplace.

Chemical manufacturers are responsible for developing SDSs. An SDS for each chemical used shall be on hand. If an SDS is not provided, appears inadequate, or the composition of the chemical is unknown or questionable, then the manufacturer, supplier, and/or client shall be contacted for more details.

The manufacturer, importer, or employer preparing the safety data sheet shall ensure that the information recorded accurately reflects the scientific evidence used in making the hazard determination.

If the manufacturer, importer, or employer becomes aware of any significant information regarding the hazards of a substance, or ways to protect against the hazards, this new information shall be added to the safety data sheet within 3 months. If the substance is not currently being produced or imported, the manufacturer or importer shall add the information to the safety data sheet before the substance is introduced into the workplace again.

SDSs shall be readily accessible during each work shift to employees when they are in their work area(s). Where employees must travel between workplaces during a work shift (i.e., their work is carried out at more than one geographical location) the safety data sheets may be kept at the primary workplace facility.

1.305 Accidents, Incidents, and Emergencies Involving Hazardous Substances

All spills shall be cleaned up as soon as possible.



VRG Controls LLC Hazard Communication Program
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Disposal of any clean up materials shall be carried out in a responsible manner and any discharge shall be immediately reported according to Company policy and legislation.

1.306 Trade Secrets

The identity of a trade secret chemical, including the name and other specific identification, may be withheld from the written list of hazardous chemicals, the label, and the SDS, provided that the Company:

- Can support the claim that the chemical's identity is a trade secret
- Identifies the chemical in a way that it can be referred to without disclosing the secret
- Indicates in the SDS that the chemical's identity is withheld as a trade secret
- Discloses in the SDS information on the properties and effects of the hazardous chemical

Make the chemical's identity available to employees, designated representatives, and health professionals in accordance with requirements.

The standard does not require the Company to disclose process or percentage of mixture information, which is a trade secret, under any circumstances.



**VRG Controls LLC
Hazard Communication Program**

Appendix 8 Inventory of Hazardous Chemicals Form

Facility Identification					
Facility Name:		Phone No.:			
Responsible Party:		Date of Last Update:			
Address:					
Chemical Name	CAS Number	Quantity	Physical State	Location	Expiration Date
			Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/>		
			Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/>		



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			Solid <input type="checkbox"/>		
			Liquid <input type="checkbox"/>		
			Gas <input type="checkbox"/>		
			Solid <input type="checkbox"/>		
			Liquid <input type="checkbox"/>		
			Gas <input type="checkbox"/>		
			Solid <input type="checkbox"/>		
			Liquid <input type="checkbox"/>		
			Gas <input type="checkbox"/>		



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			Solid <input type="checkbox"/>		
			Liquid <input type="checkbox"/>		
			Gas <input type="checkbox"/>		
			Solid <input type="checkbox"/>		
			Liquid <input type="checkbox"/>		
			Gas <input type="checkbox"/>		



VRG Controls LLC Heat Illness Prevention Program

27. HEAT ILLNESS PREVENTION PROGRAM

1.307 Purpose and Scope

The purpose of this program is to provide information on the recognition, evaluation, and control of potential heat stress conditions to prevent heat related illnesses.

This program applies to all VRG Controls LLC employees.

1.308 Heat Illness Prevention

Heat stress occurs when the heat load on the body exceeds the body's capacity to cool itself.

Being uncomfortable is not the major problem with working in high temperature and humidity. Employees who are suddenly exposed to working in a hot environment face additional and generally avoidable hazards to their safety and health.

Specific measures must be in place to controls the effects of environmental factors related to heat illnesses and heat related thermal stressors.

Methods of electrolyte replacement must be provided during physical activities in how climates where such activities could bring on heat related illnesses.

1.309 Workplace and Task Evaluation

A thorough evaluation of the workplace may be necessary to identify tasks and conditions that present a potential heat stress hazard. This analysis is limited to job classifications where a majority of employees have occupational exposure to heat illness for more than 30 minutes of any 60-minute period, excluding breaks. This evaluation should include observations, discussions with employees and supervisors, and the review of any reported heat-related disorders.



VRG Controls LLC Heat Illness Prevention Program

Physical and other factors that can contribute to heat related illness shall be taken into consideration prior to performing tasks in a heat stress environment, which include but are not limited to:

- Job Location
- Work Duration
- Schedule
- Staffing
- Clothing type, weight, and breathability
- Metabolism
- Environmental conditions (ambient temperature, relative humidity)
- Fitness for duty
- Existing controls (e.g., proper tools and equipment, work/rest ratio, ventilation, cool zones, cool vests, fluid and electrolyte replacement, buddy system, etc.).

1.310 Risk Factors

Physical factors that contribute to heat related illness shall be taken into consideration before performing a task. The most common physical factors that can contribute to heat related illness are type of work, level of physical activity and duration, and clothing color, weight, and breathability.

Personal risk factors include medical conditions, lack of physical fitness, previous episodes of heat-related illness, alcohol consumption, drugs, and use of certain medication.

Supervisors shall ensure personal factors that contribute to heat related illness are taken into consideration before assigning a task where there is the possibility of a heat-related illness occurring.

1.311 Recognition

When the human body cannot maintain the internal body temperature or electrolyte balance, this leads to heat related illness such as heat edema, heat cramps, heat exhaustion, and heat stroke.

The body temperature must be maintained near the normal body temperature of 98.6 °F to function properly. The body is capable of removing excess heat, leading to the following heat related illnesses:



<p style="text-align: center;">VRG Controls LLC Heat Illness Prevention Program</p>

1.311.1 Heat Stroke

Heat stroke is the most serious heat-related illness. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. When heat stroke occurs, the body temperature can rise to 106 °F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not given. Symptoms include confusion, altered mental status, slurred speech, loss of consciousness, seizures, very high body temperature.

Take the following steps to treat an employee with heat stroke:

- Call 911 for emergency medical care.
- Stay with the employee until emergency medical services arrive.
- Move the employee to a shaded, cool area and remove outer clothing.
- Cool the employee quickly with a cold water or ice bath if possible; wet the skin, place cold wet cloth on skin, or soak clothing with cool water.
- Circulate the air around the employee to speed cooling.
- Place cold wet cloth or ice on head, neck, armpits, and groin; or soak the clothing with cool water.

1.311.2 Heat Exhaustion

Heat exhaustion is the body's response to an excessive loss of the water and salt, usually through excessive sweating. Employees most prone to heat exhaustion are those that are elderly, have high blood pressure, and those working in a hot environment. Symptoms include headache, nausea, dizziness, weakness, irritability, thirst, heavy sweating, elevated body temperature, and decreased urine output.

Treat an employee suffering from heat exhaustion with the following:

- Take them to a clinic or emergency room for medical evaluation and treatment.
- If medical care is unavailable, call 911.
- Someone should stay with employee until help arrives.
- Remove the employee from hot area and give liquids to drink.
- Remove unnecessary clothing, including shoes and socks.
- Cool the employee with cold compresses or have the employee wash head, face, and neck with cold water.



VRG Controls LLC Heat Illness Prevention Program

- Encourage frequent sips of cool water.

1.311.3 Rhabdomyolysis

Rhabdomyolysis is a medical condition associated with heat stress and prolonged physical exertion, resulting in the rapid breakdown, rupture, and death of muscle. When muscle tissue dies, electrolytes and large proteins are released into the bloodstream that can cause irregular heart rhythms and seizures and damage the kidneys. Symptoms include muscle cramps / pain, abnormally dark urine, weakness, exercise intolerance, or be asymptomatic.

Employee with symptoms of rhabdomyolysis should:

- Stop activity.
- Increase oral hydration (water preferred).
- Seek immediate care at the nearest medical facility.
- Ask to be checked for rhabdomyolysis (i.e., blood sample analyzed for creatine kinase).

1.311.4 Heat Syncope

A fainting (syncope) episode or dizziness that usually occurs with prolonged standing or sudden rising from a sitting or lying position. Factors that may contribute to heat syncope include dehydration and lack of acclimatization.

Employees with heat syncope should sit or lie down in a cool place and slowly drink water, clear juice, or a sports drink.

1.311.5 Heat Cramps

Heat cramps usually affect employees who sweat a lot during strenuous activity. This sweating depletes the body's salt and moisture levels. Low salt levels in muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion.

Employees should drink water and have a snack and/or carbohydrate-electrolyte replacement liquid every 15 to 20 minutes. Salt tablets should be avoided. Get medical help if the employee has heart problems, is on a low sodium diet, or if cramps do not subside within one hour.

1.311.6 Heat Edema

Heat causes the blood vessels to expand, so body fluid moves into the hand or legs by gravity.

Mild edema usually goes away on its own, particularly if the affected limb is raised higher than the heart.



VRG Controls LLC Heat Illness Prevention Program

1.311.7 Heat Rash

Heat rash is a skin irritation caused by excessive sweating during hot, humid weather. Symptoms include what looks like red cluster of pimples or small blisters that usually appear on the neck, upper chest, groin, under the breasts, and in elbow creases.

Employees experiencing heat rash should:

- When possible, a cooler, less humid work environment is best treatment.
- Keep rash area dry.
- Powder may be applied to increase comfort.
- Ointments and creams should not be used.

1.312 Evaluation

The Heat Index should be used as a reference or indicator to define the general overall heat stress conditions. The Heat Index is also known as the “effective / feels like temperature”.

The Heat Index is based on relative humidity and air temperature. It is predictive of heat stress in circumstances in which the relationship has been established for a particular environment. Heat Index indicates thermal comfort.

1.313 Controls

Employees shall have access to fresh, pure, and suitably cool potable drinking water at no charge. Where it is not plumbed or otherwise continuously supplied, it shall be provided in sufficient quantity at the beginning of the work shift, but not less than one quart per hour per employee.

At or below 80 degrees Fahrenheit employees shall have timely access to shade that is either open to the air or provided with ventilation or cooling upon request. For temperatures at or above 80 degrees Fahrenheit, one or more areas with shade shall be provided at all times while employees are present. Shade shall accommodate the number of employees on recovery or rest periods at all times.

In high temperatures, the following shall be considered:

- Effective communication by voice or electronic means.
- Observation of employees for alertness and signs / symptoms of heat illness.
- Designation of employees on each worksite to call for emergency medical services.



VRG Controls LLC Heat Illness Prevention Program

- Reminders to drink water throughout the shift.
- Pre-shift meetings before beginning work.
- Reminders to employees of their right to take a cool-down rest when necessary.

Vehicles with enclosed cabs must have air conditioning no later than May 1, 2025, per jurisdiction.

An individual at the worksite shall be responsible for monitoring conditions and implementing the heat plan throughout the workday. This individual can be a foreman, jobsite supervisor, safety director, or anyone else with the proper training.

Engineering controls such as air conditioning, with cooled air, and increased air flow shall be employed. During their first few days in warm or hot environments, employees should consume adequate fluids, work shorter shifts, take frequent breaks, and quickly identify any heat illness symptoms.

Work processes that may generate additional heat or humidity must be identified and mitigated.

1.313.1 Acclimation

Acclimatization is the beneficial physiological adaptations that occur during repeated exposure to a hot environment. These practices must be followed for newly assigned or reassigned work.

To acclimatize employees, gradually increase their exposure time in hot environmental conditions over a 7-to-14-day period. New employees will need more time to acclimatize than employees who have already had some exposure.

For new employees, the schedule should be no more than a 20% exposure on day one and an increase of no more than 20% on each additional day.

For employees who have had previous experience with the job, the acclimatization regimen should be no more than a 50% exposure on day one, 60% on day two, 80% on day three, and 100% on day four.

In addition, the level of acclimatization each employee reaches is relative to the initial level of physical fitness and the total heat stress experienced by the individual.

1.314 Training

Training must be available and understandable. The program shall include:

- The environmental and personal risk factors for heat illness.
- Company procedures for complying with the requirements of the standard.



VRG Controls LLC Heat Illness Prevention Program

- The importance of frequent consumption of small quantities of water, up to four cups per hour, when the work environment is hot, and employees are likely to be sweating more than usual in the performance of their duties.
- The importance of acclimatization.
- The different types of heat illness and the common signs and symptoms of heat illness.
- How to recognize the hazards of heat illness.
- Procedures to be followed to minimize the hazards of heat illness.
- The importance to employees of immediately reporting to the employer, directly or through the employee's supervisor, symptoms, or signs of heat illness in themselves, or in co-workers.
- Company procedures for responding to symptoms of possible heat illness, including how emergency medical services will be provided should they become necessary
- Company procedures for contacting emergency medical services, and if necessary, for transporting employees to a point where they can be reached by an emergency medical service provider.
- Company procedures for ensuring that, in the event of an emergency, clear and precise directions to the work site can and will be provided as needed to emergency responders.
- Environmental and personal risk factors, prevention, how to recognize and report signs and symptoms of heat illness and injury, how to administer appropriate first aid measures, and how to report heat illness and injury to emergency medical personnel.

Supervisors shall be trained in heat related illness prior to supervision of employees working in the heat. Training shall include:

- The procedures the supervisor is to follow to implement the applicable procedures to prevent heat illness.
- The procedures the supervisor is to follow when an employee exhibits symptoms consistent with possible heat illness, including emergency response procedures.



VRG Controls LLC Heat Illness Prevention Program

1.315 Emergency Response

When any heat-related illness symptom is present, promptly provide first aid to the affected employee. First aid for heat related illness includes:

- Taking the affected employee to a cooler area,
- Cooling the employee immediately,
- Never leave an employee with heat-related illness alone, and
- When in doubt, call 911.

An individual who will contact emergency services if an employee is experiencing signs of heat illness must be designated.

1.316 Climate Controlled Environments

The requirements of the regulation do not apply to employees who work indoors in climate-controlled environments, including motor vehicles with a properly functioning climate control system.

If the climate control system becomes non-functional or ineffective, make a good faith effort to reestablish an effective climate control system as soon as practicable.

Until the climate control system is rendered effective, mitigate the potential hazards that could cause heat illness.

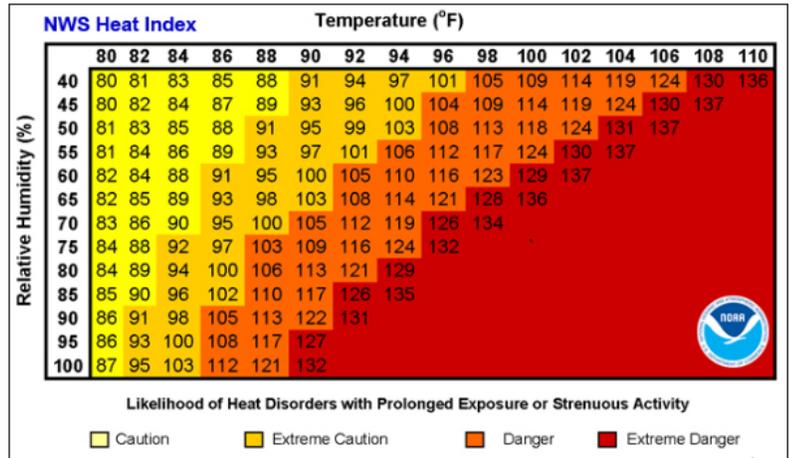
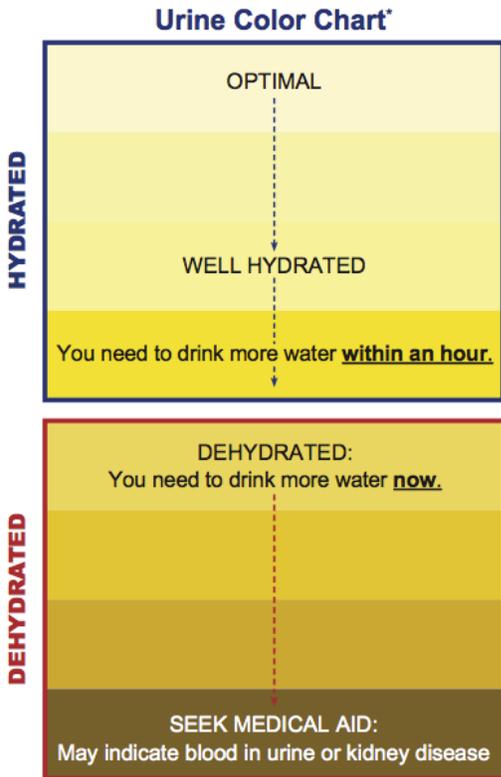
1.317 Collective Bargaining Agreements

The Company can exceed the requirements of the regulation on its own or through collective bargaining agreements.

Collective bargaining agreements cannot waive or reduce the requirements of the regulation, and the regulation does not relieve the Company of contractual obligations under a collective bargaining agreement.

**VRG Controls LLC
Heat Illness Prevention Program**

Appendix 9 Hydration Chart and Heat Index



*This color chart is not for clinical use.

Heat Category	WBGT Index, °F	Easy Work	Moderate Work	Hard Work
		Water Intake (Quart/Hour)	Water Intake (Quart/Hour)	Water Intake (Quart/Hour)
1	78° - 81.9°	½	¾	¾
2	82° - 84.9°	½	¾	1
3	85° - 87.9°	¾	¾	1
4	88° - 89.9°	¾	¾	1
5	> 90°	1	1	1



VRG Controls LLC
Incident Investigation and Reporting Program

28. INCIDENT INVESTIGATION AND REPORTING PROGRAM

1.318 Purpose and Scope

The purpose of this program is to define the company incident investigation and reporting procedures.

This program applies to all VRG Controls LLC employees.

1.319 Resources

Number	Title
30 CFR 250	SEMS-Incident Investigations
29 CFR 1926 Subpart C	General Safety and Health Provisions-Recording and Reporting of Injuries
N/A	OSHA Incident Investigations Guide for Employers
CMS-FM-0029	Incident Reporting Form
CMS-FM-0030	Incident Investigation Report
CMS-FM-0042	Injury / Illness Recording Flowchart
CMS-FM-0037	Incident Workplace Related Flowchart
CMS-FM-0038	Injury and Illness Classification Chart

1.320 Definitions

Acronym/Term	Definition
Hazard	A situation or an inherent property with the potential to cause harm to personnel, assets, the environment, or the company's reputation.
Hazard Observation	An unsafe condition that could lead to an incident involving people, environment, or property.
Incident	An unplanned, undesired event that can result in physical harm and/or property A work-related event in which an injury or ill-health (regardless of severity) or fatality occurred or could have occurred.
Investigation	To derive a level of understanding from a systematic gathering and subsequent analysis of information.
Near Miss/Near Hit	Incidents with no injury or property or environmental damage but having the potential to cause injury or property or environmental damage under slightly different circumstances. This could include an unsafe act.
Work Related Injury or Illness	An event or exposure in the work environment that caused or contributed to the condition or significantly aggravated a pre-existing condition.



VRG Controls LLC Incident Investigation and Reporting Program
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1.321 Incident Investigations

When notification of a work-related incident is received, qualified personnel shall be appointed to complete an investigation of the incident. Qualified personnel shall be knowledgeable in investigation techniques, processes involved, and other relevant specialties. The investigation should take place as soon as possible after the incident occurs. While all incidents, regardless of size and impact, including fatalities, injuries, illness, and near misses should be investigated, the extent of such investigation shall reflect the seriousness of the incident. First aid incidents shall be investigated but minimal resources may be required.

Prior to an incident occurring, assignments shall be made establishing responsibility for how and when management is to be notified; who will conduct investigations and what training they should have received; who will receive investigation recommendations; and, who is responsible for implementing corrective actions.

Before investigating, all emergency response needs shall be completed, and the incident site shall be safe and secure for entry and investigation.

At a minimum, the incident investigation program shall address:

- The nature of the incident.
- Human or other contributing factors leading to the incident.
- Recommended changes identified as a result of the investigation.

1.322 Reporting

When an employee is involved in a work-related incident or is aware of a condition that may cause one, the employee must report the incident to Management as soon as possible. Incidents include near misses, injuries, illnesses, property damage, etc.

Fatalities shall be reported to OSHA within 8 hours of their discovery. Inpatient hospitalizations, amputations, and loses of an eye shall be reported to OSHA within 24 hours. Incidents shall also be reported to the host client / site operator as soon as possible, or in a timely manner (within 24 hours of incident).

The company must report severe injuries and/or fatalities using one of the following methods:
(a) by telephone or in person to the OSHA Area Office that is nearest to the site of the incident,
(b) by telephone to the OSHA toll-free central telephone number, 1-800-321-OSHA (1-800-321-6742), or by electronic submission using the reporting application located on OSHA's public web site at www.osha.gov.



VRG Controls LLC Incident Investigation and Reporting Program
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1.323 Training

Members of the incident investigation team shall be qualified / competent individuals. Training shall be provided on investigation techniques used during an incident investigation. Personnel shall be trained in their roles and responsibilities for incident response and incident investigation techniques.

1.324 Roles and Responsibilities

Incident Investigator: The primary role of the incident investigator is to lead the investigation process. Their responsibilities include:

- Planning and organizing the investigation.
- Gathering evidence and conducting interviews.
- Analyzing data and identifying root causes.
- Developing recommendations for prevention and mitigation.
- Preparing and presenting investigation reports.

Team Members: Depending on the complexity of the incident, the investigator may work with a team. Team members' responsibilities include:

- Assisting with evidence collection and analysis.
- Conducting interviews and documenting statements.
- Reviewing relevant documents and records.
- Providing technical expertise or subject matter knowledge.
- Collaborating with the investigator to identify root causes.

Subject Matter Experts: In certain investigations, subject matter experts may be involved to provide specialized knowledge or expertise related to the incident. Their responsibilities include:

- Providing technical guidance and support.
- Analyzing specific aspects of the incident.
- Assisting with data interpretation and analysis.
- Recommending corrective actions based on their expertise.



VRG Controls LLC Incident Investigation and Reporting Program

Interviewers: Interviewers play a crucial role in gathering information from individuals involved in the incident. Their responsibilities include:

- Conducting interviews with witnesses, victims, and involved parties.
- Documenting interviewee statements accurately and objectively.
- Probing for additional details and clarifications.
- Maintaining confidentiality and professionalism during interviews.

Evidence Collectors: Individuals responsible for collecting evidence have the following responsibilities:

- Identifying and documenting physical evidence at the incident site.
- Taking photographs, measurements, and samples, if applicable.
- Ensuring proper handling and preservation of evidence.
- Maintaining a chain of custody for the collected evidence.

Documentation Specialists: Accurate and comprehensive documentation is crucial for incident investigations. Documentation specialists are responsible for:

- Recording all relevant information, actions, and findings.
- Organizing and cataloging collected evidence and documentation.
- Maintaining a centralized repository for investigation records.
- Preparing clear and concise reports.

Legal and Compliance Advisors: Depending on the nature of the incident, legal and compliance advisors may be involved. Their responsibilities include:

- Providing guidance on legal requirements and compliance obligations.
- Assessing the potential legal implications of the incident.
- Ensuring the investigation adheres to legal and regulatory standards.
- Reviewing investigation findings and recommendations for legal compliance.

1.325 Evidence Collection

Initial identification of evidence may include:

- A listing of people, equipment, and materials involved.



VRG Controls LLC Incident Investigation and Reporting Program

- A recording of environmental factors such as weather, illumination, temperature, noise, ventilation.
- Physical factors such as fatigue, age, and medical conditions.

Incident information can be collected through interviews, document reviews and other means including: equipment manuals, industry guidance documents, Company policies and records, maintenance schedules, records and logs, training records, audit and follow-up reports, enforcement policies and records, and previous corrective action recommendations.

Witness interviews and statements shall be collected. Evidence shall be preserved using cones, tapes, and/or guards, secured, and collected through notes, photographs, witness statements, flagging, and impoundment of documents and equipment.

1.326 Corrective Action

Corrective action programs shall be established based on the findings of the incident investigation. The investigation shall be expedited, and findings and recommendations resolved in a timely manner. Corrective action programs shall analyze incidents for root causes and shall, at a minimum:

- Retain incident investigation findings for future hazard analysis or 2 years; whichever is greater.
- Determine and document responses to findings to ensure corrective action plans are completed.
- Implement a system to distribute incident investigation findings to appropriate personnel and/or similar facilities throughout the organization.

1.327 Incident Investigation Report

Incident investigations shall be documented. Participants shall prepare a written report including the description of the incident, any evidence collected during the investigation, an explanation of the causes of the incident, and corrective actions.

The written incident investigation report shall include any immediate corrective actions that were taken as well as any long-term actions that are required to prevent the recurrence of the incident.

Incident facts may include:

- The injured employee's name
- Injury description



<p>VRG Controls LLC</p> <p>Incident Investigation and Reporting Program</p>

- Whether they are temporary or permanent
- The date and location of the incident

Document the investigation such as date of the investigation and who is investigating. Investigators may also document the scene by video recording, photographing, and sketching.

1.328 Lessons Learned

Lessons learned shall be reviewed and communicated. Changes to processes shall be placed into effect to prevent reoccurrence or similar events. Corrective actions shall be supported by senior management.



**VRG Controls LLC
Incident Investigation Program**

Appendix 10 Incident Reporting Form

General Information

Incident No. / Title:	Facility / Project Name:	<input type="checkbox"/> Near Miss
		<input type="checkbox"/> Equipment Damage / Production Loss
		<input type="checkbox"/> Employee Injury / Illness
		<input type="checkbox"/> Environmental

Logistics of Incident

Incident Date:		Location:		Weather:		Meet/assist notified?	
Incident Time:		Project /Contract:		Wind:		How injured transporter?	
Shift		Specific Activity:		Other:		Location/time of meet?	
						Destination?	



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Incident Investigation Program**

Relevant Personnel									
Manager:		Other:		Witness:					
First Responder:									
Medic:									
Supervisor:									
Persons Involved in Incident									
Name	Company	Title	Employee ID	Days on Shift	Length of Service	Type of Incident	Body Part	Side of Body	Primary Diagnosis (Doctor)



**VRG Controls LLC
Incident Investigation Program**

Description of Incident

Initial Actions Taken to Mitigate Risks and/or Prevent Escalation or Recurrence

Notifications Made

Entity Name	Name of Individual	Individual's Title	Date	Time



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Incident Investigation Program**

Signatures

Printed Name:		Date:	
Signature:		Comments:	



**VRG Controls LLC
Incident Investigation Program**

Appendix 11

Incident Investigation Report

General Information					
Company Name:				Date:	
Team Member Name:			Title:		
Incident Description / Injury Information					
Name of Injured Employee:					
Employee's Age:					
Employee's Job Title:					
Job at Time of Injury:					
Type of Employment:	<input type="checkbox"/> Full-time	<input type="checkbox"/> Part-time	<input type="checkbox"/> Temporary	<input type="checkbox"/> Seasonal	<input type="checkbox"/> Other:
Date of Incident:			Time of Incident:		
Length of Time with Company:					
Time in Current Position:					
Location of Incident:					
Description of Injury:					



**VRG Controls LLC
Incident Investigation Program**

Detailed Description of Incident

Include relevant events leading up to, during, and after the incident, preferably provided by the injured employee.

Eyewitness Description of Incident

Include relevant events leading up to, during, and after the incident. Include names of persons interviewed, job titles, and date and time of interviews.



**VRG Controls LLC
Incident Investigation Program**

Description of Incident from Additional Employees with Knowledge

Include relevant events leading up to, during, and after the incident. Include names of persons interviewed, job titles, and date and time of interviews.

Identify the Root Cause

What caused or allowed the incident to happen?

The root causes are the underlying reasons the incident occurred and are the factors that need to be addressed to prevent future incidents. If safety procedures were not being followed, why were they not being followed? If a machine was faulty or a safety device failed, why did it fail? It is common to find factors that contributed to the incident in several of these areas: equipment/machinery, tools, procedures, training or lack of training, and work environment. If these factors are identified, it must be determined why these factors were not address before the incident.



**VRG Controls LLC
Incident Investigation Program**

Recommended Corrective Actions to Prevent Future Incidents

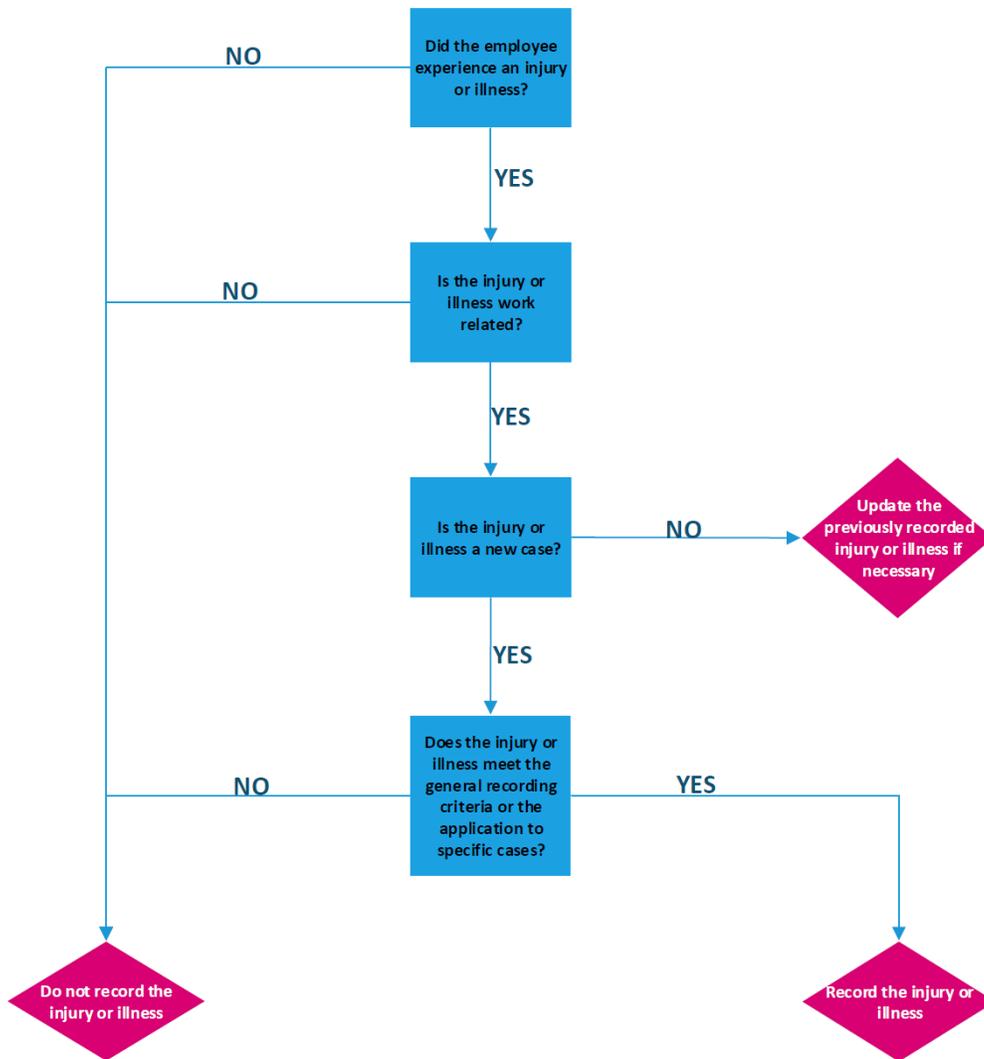
Corrective Actions Taken / Root Causes Addressed

**VRG Controls LLC
Incident Investigation Program**

Appendix 12

Injury / Illness Recording Flowchart

Injury / Illness Recording Flowchart

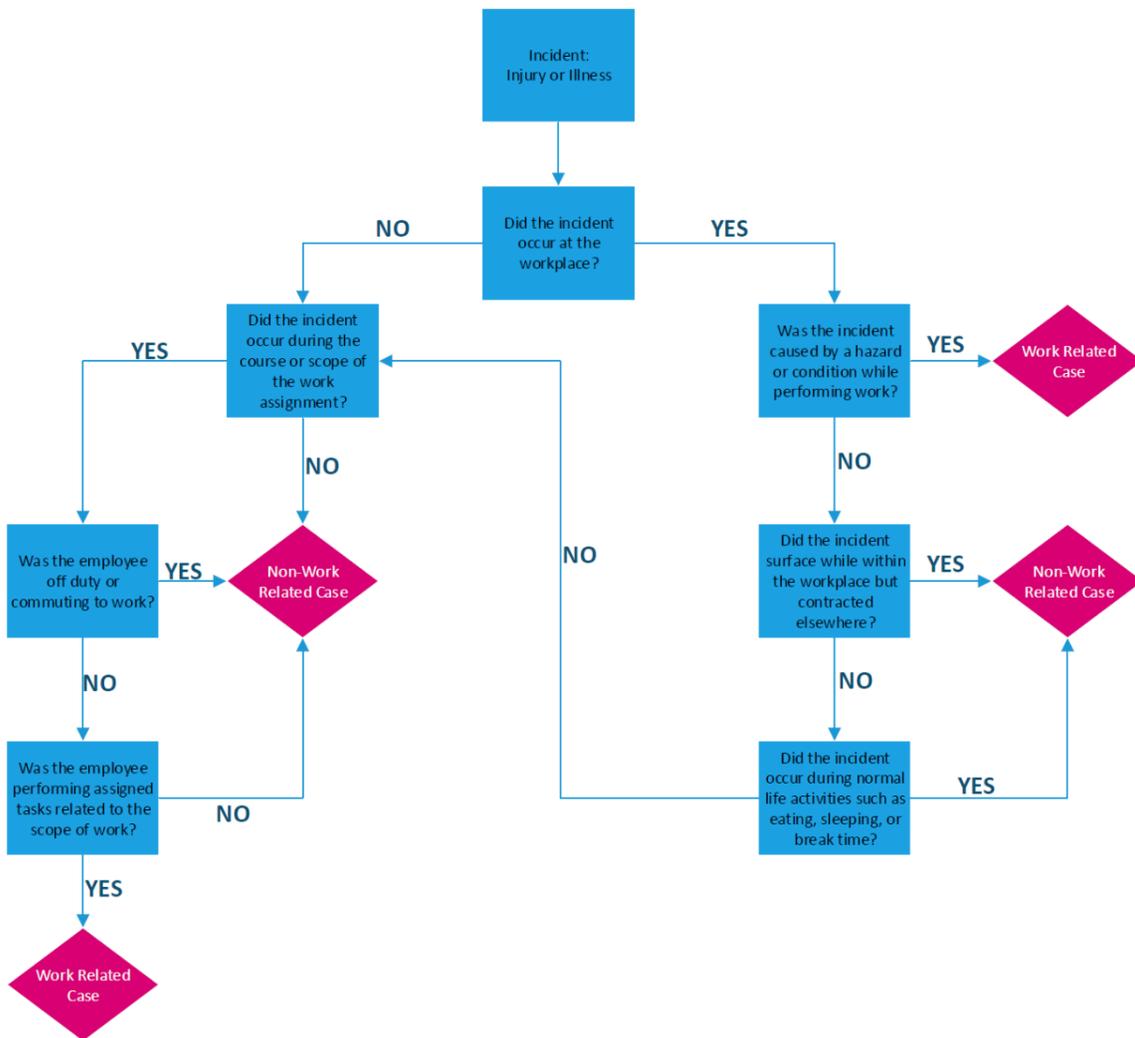


**VRG Controls LLC
Incident Investigation Program**

Appendix 13

Incident Workplace Related Flowchart

Work Related or Non-Work Related Decision Chart

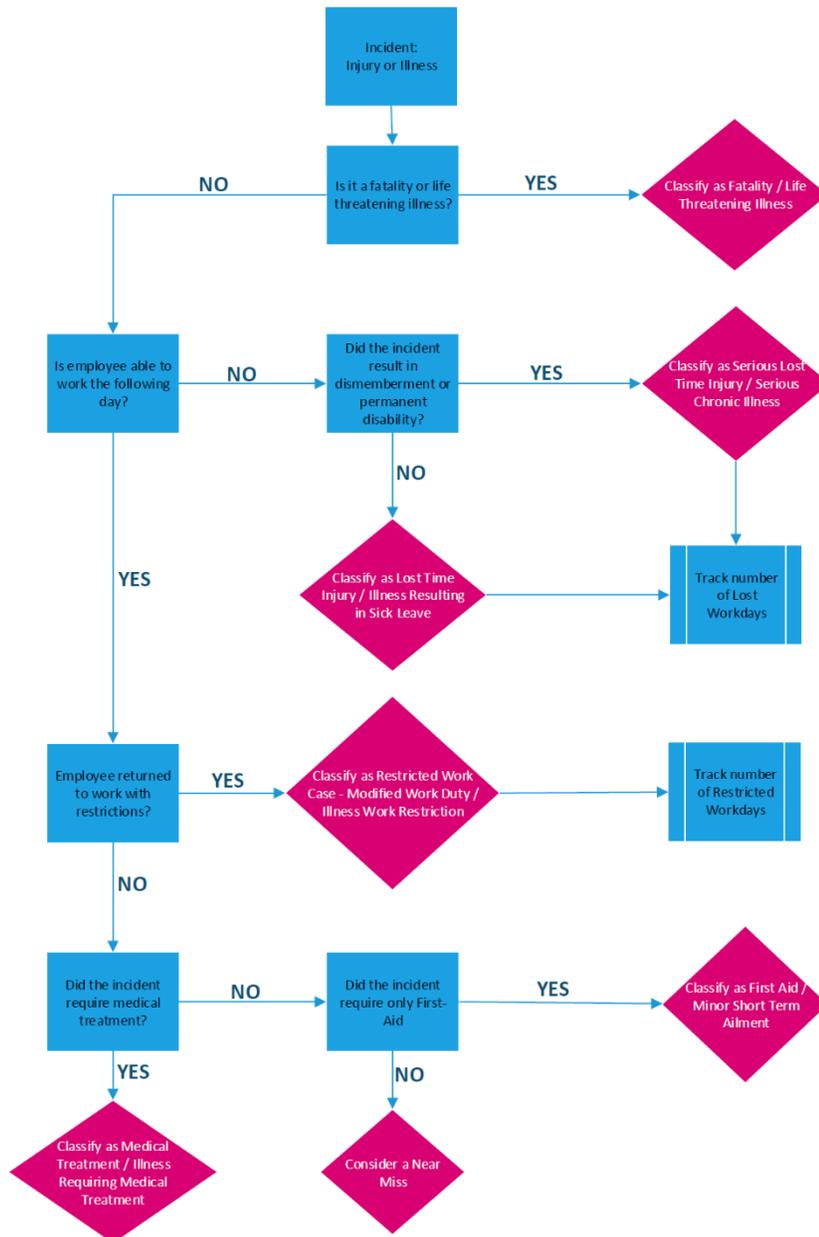


**VRG Controls LLC
Incident Investigation Program**

Appendix 14

Injury and Illness Classification Chart

Injury and Illness Classification Chart





VRG Controls LLC
Injury / Illness Recordkeeping Program

29. INJURY / ILLNESS RECORDKEEPING PROGRAM

1.329 Purpose and Scope

The purpose of this program is to define injury and illness recordkeeping requirements.

This program applies to all VRG Controls LLC employees.

1.330 Resources

Number	Title
29 CFR 1904	Recording and Reporting Occupational Injuries and Illnesses

1.331 Injury / Illness Recordkeeping Requirements

Recordkeeping and reporting are required and appropriate for developing information regarding the causes and prevention of occupational incidents and illnesses and for maintaining a program of collection, compilation, and analysis of occupational safety and health statistics.

1.332 Records

Records shall be kept of fatalities, injuries, and illnesses that:

- Are work-related
- Are new cases
- Meet one or more of the general recording criteria (death, days away from work, restricted work or transfer to another job, medical treatment beyond first aid, loss of consciousness, a significant injury or illness diagnosed by a physician or other licensed health care professional, needlesticks and sharps injury cases, tuberculosis cases, hearing loss cases, medical removal cases, musculoskeletal cases).

1.333 OSHA 300 Log

Each recordable injury or illness shall be entered on an OSHA 300 Log and 301 Incident Report, or other equivalent form, within 7 calendar days of receiving information that a recordable injury or illness has occurred.

A company executive shall certify that the OSHA 300 Log has been examined and when found to be correct, sign the OSHA 300A Summary.



VRG Controls LLC Injury / Illness Recordkeeping Program
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A copy of the annual summary shall be posted in each establishment in a conspicuous place or places where notices to employees are customarily posted. The posted annual summary shall not be altered, defaced, or covered by other material.

The annual summary shall be posted no later than February 1st of the year following the year covered by the records and the posting kept in place through April 30th.

The OSHA 300 Log, the privacy case list (if one exists), the annual summary, and the OSHA 301 Incident Report forms shall be retained for 5 years following the end of the calendar year that these records cover.

1.334 Restricted Work or Job Transfer

Restricted work occurs when, as the result of a work-related injury or illness:

- The employee is kept from performing one or more of the routine functions of their job, or from working the full workday that they would otherwise have been scheduled to work; or
- A physician or other licensed health care professional recommends that the employee not perform one or more of the routine functions of their job, or not work the full workday that they would otherwise have been scheduled to work.

1.335 Medical Treatment Beyond First Aid

Medical treatment means the management and care of a patient to combat disease or disorder. Medical treatment does not include:

- Visits to a physician or other licensed health care professional solely for observation or counseling,
- The conduct of diagnostic procedures, such as x-rays and blood tests, including the administration of prescription medications used solely for diagnostic purposes (e.g., eye drops to dilate pupils), or
- First aid.

1.336 First Aid

First aid means:

- Using a non-prescription medication at nonprescription strength (for medications available in both prescription and non-prescription form, a recommendation by a physician or other licensed health care professional to use a non-prescription medication at prescription strength is considered medical treatment for recordkeeping purposes).



<p style="text-align: center;">VRG Controls LLC Injury / Illness Recordkeeping Program</p>
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- Administering tetanus immunizations (other immunizations, such as Hepatitis B vaccine or rabies vaccine, are considered medical treatment).
- Cleaning, flushing, or soaking wounds on the surface of the skin.
- Using wound coverings such as bandages, plastic strip bandages, gauze pads, etc. or using butterfly bandages (other wound closing devices such as sutures, staples, etc., are considered medical treatment).
- Using hot or cold therapy.
- Using any non-rigid means of support, such as elastic bandages, wraps, non-rigid back belts, etc. (devices with rigid stays or other systems designed to immobilize parts of the body are considered medical treatment for recordkeeping purposes).
- Using temporary immobilization devices while transporting an accident victim (e.g., splints, slings, neck collars, back boards, etc.).
- Drilling of a fingernail or toenail to relieve pressure or draining fluid from a blister.
- Using eye patches.
- Removing foreign bodies from the eye using only irrigation or a cotton swab.
- Removing splinters or foreign material from areas other than the eye by irrigation, tweezers, cotton swabs, or other simple means.
- Using finger guards.
- Using massages (physical therapy or chiropractic treatment are considered medical treatment for recordkeeping purposes).
- Drinking fluids for relief of heat stress.



VRG Controls LLC Job Competency Program
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30. JOB COMPETENCY PROGRAM

1.337 Purpose and Scope

The purpose of this program is to ensure employee's ability and competence in safe performance of their work.

This program applies to all VRG Controls LLC employees.

1.338 Job Competency Program

An organizational chart or list of the job titles / roles in the Company shall be established and available.

Minimum qualifications required to perform each role shall be determined. This includes a combination of education and work experience.

A procedure to ensure that documentation is acquired from employees as proof that they are qualified to perform their job duties shall be established.

Job specific training shall be provided for new or transferred employees. All employees shall be trained on the tasks they perform on a regular basis.

A competent person (Supervisor, Lead, etc.) shall verify that an employee is competent to perform their roles and responsibilities before being allowed to work independently.



VRG Controls LLC
Journey Management Program

31. JOURNEY MANAGEMENT PROGRAM

1.339 Purpose and Scope

The purpose of this program is to describe the significant aspects of the journey management process and provide the essential elements of a Journey Management Plan for planning and undertaking road transport journeys in compliance with Health, Safety, and Environmental (HSE) requirements, with the goal of arriving safely.

This program applies to all VRG Controls LLC employees who drive or operate a vehicle while on company business. This includes all company owned, leased, and/or rented vehicles. This is also applicable to personal vehicles when the vehicle is used for company business.

1.340 Resources

Number	Title
CMS-FM-0032	Journey Management Plan Form

1.341 Journey Management Program

Journey Management is a process for planning and executing necessary land transport journeys in compliance with HSE requirements.

When making a road journey, whether it is for business or pleasure, chances of arriving safely are greatly increased by careful planning. Fail to plan adequately and chances of being involved in an incident will increase.

1.342 Plan Review

The Journey Management Plan shall be reviewed with road travelers before they perform any driving on company business. A copy of the plan shall be readily available at the workplace. Road travelers shall carry a copy of the plan.

1.343 Journey Planning

1.343.1 Seatbelts

All occupants shall wear seatbelts when the vehicle is in operation.



VRG Controls LLC Journey Management Program
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1.343.2 Necessary Driving

Road journeys shall only be taken when necessary. Completing multiple tasks in single trips will reduce the amount of driving for improved safety and efficiency. If the trip is being taken to meet with someone, determine if the meeting can be done over the phone instead. Safer methods of travel (air, train, etc.) shall be considered where practicable.

1.343.3 Day vs Night Driving

Driving shall be done during daylight hours rather than after dark whenever possible. Reduce speed when driving at night. Be aware of the potential for wildlife to be on the road, especially when driving at dusk or dawn.

1.343.4 Weather Conditions

Before leaving on a trip, employees shall ensure that weather conditions are safe for driving and the vehicle being used is adequate for the weather conditions. Ensure emergency supplies are in the vehicle and the driver has a cell phone in case of emergency. In particularly harsh conditions, employees shall consider canceling or rescheduling the trip.

1.343.5 Driving Directions

Before taking a trip to an unfamiliar location, employees shall familiarize themselves with the route. Allow extra time to account for delays.

1.343.6 Travel Plan Notification

Employees shall notify their supervisor or another individual who is not traveling with them of their travel plans. This includes where they are going, when they should arrive, and when they plan to return. If diversion from the planned route is necessary, notify the supervisor or other individual of the change.

1.343.7 Communication

Drivers shall always carry a cell phone and charger, especially when traveling in rural areas. Consider subscribing to an in-vehicle communication / remote diagnostic service (e.g., On-Star) if the vehicle is equipped with one.



<p style="text-align: center;">VRG Controls LLC Journey Management Program</p>
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1.343.8 Fatigue Management

Fatigue is one of the most obvious consequences of poor journey planning and is a major contributing factor in road traffic incidents. A good Journey Management Plan shall consider all the factors that will minimize your chances of feeling sleepy while driving.

When driving long distances, sufficient breaks shall be taken to prevent fatigue. Plan when and where to take breaks. When driving alone and having trouble staying awake, pull off the road to a safe area and get out of the vehicle for fresh air or take a power nap. If driving late at night, consider getting a hotel room and starting fresh the next day. If two licensed drivers are in the vehicle, take turns driving. Get plenty of rest before beginning the journey.

1.343.9 Emergency Preparedness

Roadside emergency kits shall be kept in all vehicles used for highway travel. These kits shall include equipment to assist in a roadside emergency such as water, booster cables, first aid supplies, warning triangles, flashlights, etc. If there is a potential for snow and ice, carry sandbags and a shovel.



VRG Controls LLC Journey Management Program
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Appendix 15

Journey Management Plan Form

Journey Description				
Departure Date:		Vehicle Type:		
Destination:		Vehicle Number:		
Driver Name(s):				
Passenger Name(s):				
Journey Justification				
Purpose of Journey		Can journey be combined / alternatives available?		
Journey Details				
Journey Leg:	Depart Date / Time	Arrive Date / Time	Route	Rest / Sleep Details



VRG Controls LLC Journey Management Program
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Destination Contact Information			
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Name	Location	Phone	Confirmed Plan?

Risks / Controls / Additional Information									
---	--	--	--	--	--	--	--	--	--

Does the trip avoid driving in darkness?		What are the local weather conditions?		Are you transporting freight or goods with transport requirements?		Is there construction or detours along the route?		Is there mobile phone coverage?	
--	--	--	--	--	--	---	--	---------------------------------	--

Requirements and Driving Hours with Rest Breaks									
---	--	--	--	--	--	--	--	--	--

Required:

Prepare and agree on a driving and rest schedule for trips of more than 4.5 hours. Do not allow driving for more than 10 hours or a combination of work and driving of more than 14 hours.

Recommended minimum:

4.5 hours driving followed by 30-minute break or 2 hours driving followed by 15-minute break.

Journey Management Checks									
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Risks assessed, reviewed, and discussed?		Driver fit/compliant with duty hours?		Vehicle meets specs?		Driver training valid?		Driver performed vehicle inspection?		Road / Weather conditions checked?	
--	--	---------------------------------------	--	----------------------	--	------------------------	--	--------------------------------------	--	------------------------------------	--



VRG Controls LLC Journey Management Program
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Traveler Details			
Printed Name:		Date:	
Signature:		Mobile Phone No.:	
Approving Supervisor / Manager			
Printed Name:		Date:	
Signature:		Phone No.:	



**VRG Controls LLC
Ladder Safety Program**

32. LADDER SAFETY PROGRAM

1.344 Purpose and Scope

The purpose of this program is to establish guidelines for the safe use of ladders to minimize hazards and ensure employee safety.

This program applies to all VRG Controls LLC employees that use ladders.

1.345 Resources

Number	Title
29 CFR 1926 Subpart X	Stairways and Ladders-Ladders
29 CFR 1910 Subpart D	Walking Working Surfaces-Ladders

1.346 Ladder Safety Program

Ladders are a very handy tool, both at work and around the home. Ladders are such simple tools that many people forget the dangers involved when using a ladder.

1.347 Ladder Specifications

Ladders shall meet the following OSHA / ANSI specifications:

- Ladder rungs, cleats, and steps shall be parallel, level, and uniformly spaced, when the ladder is in position for use.
- Rungs, cleats, and steps of portable ladders (except as provided below) and fixed ladders (including individual rung/step ladders) shall be spaced not less than 10 inches apart, nor more than 14 inches apart, as measured between center lines of the rungs, cleats, and steps.
- Rungs, cleats, and steps of step stools shall be not less than 8 inches apart, nor more than 12 inches apart, as measured between center lines of the rungs, cleats, and steps.
- Rungs, cleats, and steps of the base section of extension trestle ladders shall not be less than 8 inches nor more than 18 inches apart, as measured between center lines of the rungs, cleats, and steps. The rung spacing on the extension section of the extension trestle ladder shall be not less than 6 inches nor more than 12 inches, as measured between center lines of the rungs, cleats, and steps.
- The minimum clear distance between the sides of individual rung / step ladders and the minimum clear distance between the side rails of other fixed ladders shall be 16 inches.



VRG Controls LLC Ladder Safety Program

The minimum clear distance between side rails for all portable ladders shall be 11 1/2 inches.

- The rungs of individual rung / step ladders shall be shaped such that employees' feet cannot slide off the end of the rungs. The rungs and steps of portable metal ladders shall be corrugated, knurled, dimpled, coated with skid-resistant material, or otherwise treated to minimize slipping.

1.348 Load Limits

Ladders are built to hold a limited amount of weight. Ladders shall not be loaded beyond the maximum intended load for which they were built, nor beyond their manufacturer's rated capacity.

Ladder shall be capable of supporting the following loads without failure:

- Each self-supporting portable ladder: At least four times the maximum intended load, except that each extra-heavy-duty type 1A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load. The ability of a ladder to sustain the loads indicated shall be determined by applying or transmitting the requisite load to the ladder in a downward vertical direction. Ladders built and tested in conformance with the applicable provisions of the Appendix of this subpart will be deemed to meet this requirement.
- Each portable ladder that is not self-supporting: At least four times the maximum intended load, except that each extra-heavy-duty type 1A metal or plastic ladder shall sustain at least 3.3 times the maximum intended load. The ability of a ladder to sustain the loads indicated shall be determined by applying or transmitting the requisite load to the ladder in a downward vertical direction when the ladder is placed at an angle of 75 1/2 degrees from the horizontal. Ladders built and tested in conformance with the applicable provisions of the Appendix will be deemed to meet this requirement.
- Each fixed ladder: At least two loads of 250 pounds each, concentrated between any two consecutive attachments (the number and position of additional concentrated loads of 250 pounds each, determined from anticipated usage of the ladder, shall also be included), plus anticipated loads caused by ice buildup, winds, rigging, and impact loads resulting from the use of ladder safety devices. Each step or rung shall be capable of supporting a single concentrated load of at least 250 pounds applied in the middle of the step or rung. Ladders built in conformance with the applicable provisions of the Appendix will be deemed to meet this requirement.



VRG Controls LLC Ladder Safety Program

1.349 Ladder Usage

Ladders shall be used only for the purpose for which they were designed. Never use a ladder in a horizontal position or as scaffolding. Do not place ladders on top of boxes, barrels, crates, etc.

1.350 Inspection

Ladders shall be inspected by a competent person for defects that can be seen and after any event that could make them unsafe to use. Ladders shall be inspected before initial use in each work shift and more frequently, as necessary, to identify any visible defects that could cause employee injury. Documentation shall be maintained.

Portable and fixed ladders that are unsafe to use shall be immediately marked to show they are unsafe to use or be tagged with "Do Not Use" or similar language. They shall be taken out of service until they are repaired or replaced.

Examples of problems that make a ladder unsafe to use include:

- Broken or missing rungs, cleats, or steps.
- Broken or split rails, corroded components.
- Other faulty or defective components.

1.351 Safe Work Practices

When portable ladders are used to reach a surface above the employee, the ladder side rails shall extend at least 3 feet above the surface the employees will be stepping onto. A ladder that cannot be extended shall be secured to a rigid support that will not cause it to slip or move and a grasping device, such as a grabrail, shall be provided to assist employees in mounting and dismounting the ladder.

A ladder that does not support itself shall be placed at an angle that is safe. This angle is defined by OSHA as being about one-quarter of the working length of the ladder, which is usually known as a 4:1 ratio. This means the ladder shall be 1 foot from the wall for every 4 feet it reaches up.

Employees shall face the ladder when climbing up or down, using at least one hand to grasp the ladder. Employees shall not carry any object or load that could cause the employee to lose balance and fall while climbing up or down the ladder.

Ladders shall only be used on stable and level surfaces unless they are secured or stabilized to prevent accidental displacement.



<p style="text-align: center;">VRG Controls LLC Ladder Safety Program</p>

Appendix 16

Guideline for Ladder Loading and Strength Requirements

This appendix serves as a non-mandatory guideline to assist in complying with the ladder loading and strength requirements. A ladder designed and built in accordance with the applicable national consensus standards, as set forth below, will be considered to meet the OSHA requirements:

- **Manufactured portable wood ladders:**
American National Standards Institute (ANSI) A14.1-1982 - American National Standard for Ladders-Portable Wood-Safety Requirements.
- **Manufactured portable metal ladders:**
ANSI A14.2-1982 - American National Standard for Ladders - Portable Metal - Safety Requirements.
- **Manufactured fixed ladders:**
ANSI A14.3-1984 - American National Standard for Ladders - Fixed - Safety Requirements.
- **Job-made ladders:**
ANSI A14.4-1979 - Safety Requirements for Job-Made Ladders.
- **Plastic ladders:**
ANSI A14.5-1982 - American National Standard for Ladders - Portable Reinforced Plastic - Safety Requirements



**VRG Controls LLC
Lockout Tagout Program**

33. LOCKOUT TAGOUT PROGRAM

1.352 Purpose and Scope

This program outlines safeguards to prevent the unexpected energization or startup of machinery and equipment or release of hazardous energy or material that could cause injury to personnel.

This program applies to all VRG Controls LLC employees working with or around hazardous energy.

1.353 Resources

Number	Title
29 CFR 1910 Subpart J	General Environmental Controls-The Control of Hazardous energy (lockout/tagout)
Cal/OSHA T8 CCR Subchapter 7	General Industry Safety Orders-Safe Practices and Personal Protection
CMS-FM-0033	Lockout Tagout Form
CMS-FM-0035	LOTO Certification of Inspection

1.354 Lockout / Tagout (LOTO) Program

Energy sources including electrical, mechanical, hydraulic, pneumatic, chemical, thermal, steam, tension, gravity, or other sources in machines and equipment can be hazardous to employees. During the servicing and maintenance of machines and equipment, the unexpected startup or release of stored energy can result in serious injury, including electrocution, burns, being crushed, lacerations, amputations, fracture limbs, or death.

Management is responsible for the implementation of the LOTO program.

1.355 Requirements

LOTO devices shall indicate the identity of the employee applying the device(s) and shall be durable, standardized, substantial, and identifiable.

LOTO shall be performed only by the authorized employees who are performing the servicing or maintenance.



VRG Controls LLC Lockout Tagout Program
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A hazard risk assessment must be conducted to identify potential hazards associated with machinery and equipment, and appropriate control measures must be implemented to minimize risks. Alternative procedures must be considered and addressed and controls implemented to provide adequate protection of hazardous energy sources when LOTO or tagout is not feasible.

1.356 Training

Training shall be provided to ensure that the purpose and function of the energy control program are understood by employees and that the knowledge and skills required for the safe application, usage, and removal of the energy controls are acquired by employees.

Accomplishment of employee training shall be certified and kept up to date. The certification shall contain each employee's name and dates of training.

Retraining shall 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. Additional retraining shall also be conducted whenever a periodic inspection reveals, or whenever the Company has reason to believe that there are deviations from or inadequacies in the employee's knowledge or use of the energy control procedures.

Employee training must be accomplished and kept up to date. The certification shall contain each employee's name and dates of training.

1.357 Inspection

A periodic inspection of the energy control procedure shall be conducted at least annually to ensure the procedure is being followed. The periodic inspection shall be performed by an authorized employee other than the ones(s) utilizing the energy control procedure being inspected. The periodic inspection shall be conducted to correct any deviations or inadequacies identified.

Where lockout is used for energy control, the periodic inspection shall include a review, between the inspector and each authorized employee, of that employee's responsibilities under the energy control procedure being inspected.

Where tagout is used for energy control, the periodic inspection shall include a review, between the inspector and each authorized and affected employee, of that employee's responsibilities under the energy control procedure.



VRG Controls LLC Lockout Tagout Program
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Performance of periodic inspections shall have certification. The certification shall identify the machine or equipment on which the energy control procedure was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

1.358 Shutdown Procedures

Before an authorized or affected employee turns off a machine or equipment, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazards of the energy to be controlled, and the methods or means to control the energy.

The machine or equipment shall be turned off or shutdown using the procedures established for the machine or equipment. An orderly shutdown shall be utilized to avoid any additional or increased hazard(s) to employees as a result of the equipment stoppage.

1.359 Isolation

Zero Energy State means the hazard has been eliminated; thus, no hazardous energy exists. A state of zero energy must be verified after a lockout device is installed.

Verification of a zero energy state must be accomplished prior to the operation.

Attempt to re-start the equipment to verify that the energy sources have been de-energized. Turn on switches, open valves, push start buttons, etc. If an energy release occurs during this verification, work cannot proceed until this source is located, isolated, and verified as de-energized. Turn switches off and close valves once de-energized state is verified.

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).

If maintenance, cleaning, or adjustments will be performed on a piece of equipment while it is in operation, safe work procedures must be in place that include how to complete the job safely. Employees must be trained on these safe work procedures and the procedures must be easily accessible.

1.360 Application

LOTO devices shall be singularly identified and affixed to each energy isolating device by authorized employees.

Lockout devices, where used, shall be affixed in a manner that will hold the energy isolating devices in a safe or off position.

Tagout devices, where used, shall 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.



VRG Controls LLC Lockout Tagout Program
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Tagout only procedures must have additional means of hazardous energy control.

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

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

1.361 Stored Energy

Following the application of LOTO devices to energy isolating devices, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, or otherwise rendered safe. If there is a possibility of re-accumulation of stored energy, verification of isolation shall be continued until the servicing or maintenance is completed or until the possibility of such accumulation no longer exists.

1.362 Verification

Prior to starting work on machines or equipment that have been locked or tagged out, the authorized employee shall verify that isolation and de-energization of the machine or equipment have been accomplished.

1.363 Removal without Authorized Employee

The device may be removed under the direction of the Company, provided that specific procedures and training for such removal have been developed, documented, and incorporated into the energy control program. First, verify the authorized employee is not at the facility, make reasonable efforts to contact the authorized employee to inform them of removal, and ensure that the authorized employee has this knowledge before they resume work at the facility.

1.364 Notification

Affected employees shall be notified by the Company or authorized employee of the application and removal of LOTO devices. Notification shall be given before the controls are applied and after they are removed from the machine or equipment.

1.365 Safety Testing

The following sequence of actions shall be followed to safety test machines when the LOTO devices must be temporarily removed:

- 1) Clear away tools,



VRG Controls LLC Lockout Tagout Program
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- 2) Remove employees,
- 3) Remove the LOTO device,
- 4) Energize and proceed with testing,
- 5) De-energize and reapply control measures.

1.366 Group LOTO

Primary responsibility is vested in an authorized employee. The authorized employee ascertains the exposure status of group members.

Each employee shall affix a personal LOTO device to the group LOTO device before engaging in the servicing and maintenance operation. The supervisor in charge of the group LOTO shall not remove the group LOTO device until each employee in the group has removed the personal device. When more than one crew, craft, department, etc. is involved, overall job associated LOTO control shall be assigned.

1.367 Shift or Personnel Changes

Specific procedures shall be utilized during shift or personnel changes to ensure the continuity of LOTO protection including provision for the orderly transfer of LOTO device protection between off going and oncoming employees to minimize exposure to hazards from the unexpected energization or startup of the machine or equipment or the release of stored energy.

1.368 Outside Personnel / Contractors

Outside personnel / contractors shall be advised that the Company has and enforces the use of LOTO procedures. They shall be informed of the use of locks and tags and notified about the prohibition of attempts to restart or re-energize machines or equipment that are locked out or tagged out.

The company shall obtain information from the outside personnel / contractor about their LOTO procedures and advise affected employees of this information.

The outside personnel / contractor shall be required to sign a certification form. If outside personnel / contractor has previously signed a certification that is on file, additional signed certification is not necessary.



VRG Controls LLC Lockout Tagout Program
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Appendix 17

Lockout Tagout Form

Compliance

All employees are required to comply with the restrictions and limitations imposed upon them during the use of LOTO.

Authorized employees are required to perform equipment isolation in accordance with procedure. Disciplinary action will be taken against all violators.

General Information

Department:	
Equipment / System Name:	
Location of Equipment:	
Reason for Isolation:	

Authorized Personnel	Affected Personnel

Hazard Assessment (check all that apply)

<input type="checkbox"/>	Electrical	<input type="checkbox"/>	Thermal (cryogenic)
<input type="checkbox"/>	Chemical	<input type="checkbox"/>	Radiation, ionizing
<input type="checkbox"/>	Pressure (hydraulic, pneumatic)	<input type="checkbox"/>	Radiation, non-ionizing
<input type="checkbox"/>	Mechanical	<input type="checkbox"/>	Stored Energy
<input type="checkbox"/>	Thermal (heat)	<input type="checkbox"/>	Other:



**VRG Controls LLC
Lockout Tagout Program**

LOTO Sequence

Step 1 – Notify affected employees that servicing will take place under LOTO.

Step 2 – Shut down (i.e., turn off) the equipment or system following the normal stopping or shut down procedures.

Step 3 – Follow the steps below to properly isolate each energy source, apply LOTO device, and verify that the equipment is in a zero-energy state.

Hazard	Magnitude	Method of Isolation	Verification Check

Addendum – Procedure steps continued on separate page.

Step 4 – Release / control stored energy (list):

Step 5 – Attempt to restart equipment; verify that equipment will not start. Return operating control(s) to neutral of “off” position after verifying the isolation of the equipment.



VRG Controls LLC Lockout Tagout Program
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Return equipment to Service

- | |
|--|
| Step 1 – Check the equipment and the immediate area around the machine to ensure that nonessential items have been removed and that the machine or equipment components are operationally intact. |
| Step 2 – Check the work area to ensure that all employees have been safely positioned or removed from the area. |
| Step 3 – Verify that the controls are in neutral or “off” position. |
| Step 4 – Remove the lockout devices and reenergize the machine or equipment. |
| Step 5 – Notify the affected employees that the servicing or maintenance is complete, and the machine or equipment is ready to use. |

Document Review and Approval

Authorized Employee Signature:		Date:		Next Review Due:
Supervisor Signature:		Date:		



VRG Controls LLC Lockout Tagout Program
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Appendix 18

LOTO Certification of Inspection

General Information			
Authorized Employee:		Supervisor:	
Item or Equipment:		Date:	
Location:			
Inspection			
Equipment Inspected	Inspector Signature	Date	Authorized Employee
Comments / Corrective Actions Taken:			
Signatures			
Employee Signature:		Date:	
Supervisor Signature:		Date:	



VRG Controls LLC Manual Lifting Program
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34. MANUAL LIFTING PROGRAM

1.369 Purpose and Scope

The purpose of this program is to provide guidelines and training to ensure that manual lifting tasks are performed in a manner that minimizes strain on the body and maximizes efficiency.

This program applies to all VRG Controls LLC employees.

1.370 Manual Lifting Program

Anyone may be involved in manually lifting objects while at work or at home. Whether lifting is an everyday job or an occasional task, lifting improperly can cause serious injury regardless of the weight of the object or the physical condition of the person lifting the object.

Always follow proper lifting procedures to reduce the risk of injury. Being physically ready to do the job can further reduce the risk of injury

1.371 Hazard Assessment

Before manual lifting is performed, a hazard assessment shall be completed. The assessment must consider size, bulk, and weight of the object(s), if mechanical lifting equipment is required, if two-man lift is required, whether vision is obscured while carrying, the walking surface and path where the object is to be carried, awkward posture, high-frequency and long duration lifting, inadequate handholds, and environmental factors.

Management must evaluate employee work conditions and work techniques and procedures to assess the risk of injuries and to prevent such injuries in the design phase of the work.

1.372 Training

Training shall include general principles of ergonomics, recognition of hazards and injuries, procedures for reporting hazardous conditions, and methods and procedures for early reporting of injuries. Additionally, job specific training shall be given on safe lifting and work practices, hazards, and controls.



VRG Controls LLC Manual Lifting Program
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1.373 Injury Investigation

Musculoskeletal injuries caused by improper lifting shall be investigated and documented. Incorporation of investigation findings into work procedures shall be accomplished to prevent future injuries.

Incident investigations and root cause analyses must be performed when injuries related to lifting occur, and corrective actions must be taken

1.374 Controls

Manual lifting equipment shall be used instead of manual lifting where possible. Supervisors shall enforce the use of lifting equipment.

Supervisors must periodically monitor employees for improper manual lifting techniques and provide positive corrections to prevent injuries. When new operations are planned, proper engineering controls such as lift assists, mechanical lifting devices, and other suitable engineering controls must be evaluated to engineer out the hazards caused by manual lifting.

Where use of lifting equipment is impractical or not possible, two-man lifts shall be used.

Engineering controls such as worktable height, ergonomic layout of the workplace, and use of lifts, jacks, and other machinery shall be used to lessen the physical burden of lifting.

Manual lifting equipment such as dollies, hand trucks, lift-assist devices, jacks, carts, and hoists shall be provided for employees.

When moving materials manually, employees shall attach handles or holders to loads. In addition, employees shall wear appropriate personal protective equipment (PPE) and use proper lifting techniques.

1.375 Evaluation

Supervision shall periodically evaluate work areas and employees' work techniques to assess the potential for and prevention of injuries. New operations shall be evaluated to engineer out hazards before work processes are implemented.



VRG Controls LLC
Noise Awareness, Exposure, and Hearing Conservation Program

35. NOISE AWARENESS, EXPOSURE, AND HEARING CONSERVATION PROGRAM

1.376 Purpose and Scope

The purpose of this program is to provide requirements to minimize employee hearing loss caused by excessive occupational exposure to noise.

This program applies to all VRG Controls LLC employees working in or near high noise areas.

1.377 Resources

Number	Title
29 CFR 1910 Subpart G	Occupational Health and Environmental Control-Occupational Noise Exposure
29 CFR 1926 Subpart D	Occupational Health and Environmental Control-Occupational Noise Exposure
Cal/OSHA T8 CCR Subchapter 7	General Industry Safety Orders-Occupational Noise and Ergonomics

1.378 Definitions

Acronym/Term	Definition
Audiometric Testing	Detection by the person being tested of a series of pure tones. For each tone, the person indicates the lowest level of intensity that they are able to perceive.
Decibels	The sound energy measured by a sound level meter using the “A” scale. The “A” scale is electronically weighted to simulate the response of the human ear to high and low frequency noise.
Standard Threshold Shift	A change in hearing threshold relative to the baseline audiogram of an average of 10 dB (corrected for age) at 2000, 3000 and 4000 Hz in either ear.

1.379 Noise Awareness, Exposure, and Hearing Conservation Program

Occupational hearing loss is a cumulative result of repeated or continued absorption of sound energy by the ear; employee protection is based on reduction of the noise level at the ear or limiting the employee’s exposure time.

A continuing effective hearing conservation program shall be administered when employees are exposed to sound levels greater than 85 decibels on an 8-hour time-weighted average (TWA) basis.

Employees exposed to noise at or above 85 dBA as an eight-hour time weighted average must be included in the company’s hearing conservation program.



<p>VRG Controls LLC</p> <p>Noise Awareness, Exposure, and Hearing Conservation Program</p>
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Whenever practical, noise levels identified as exceeding 85 decibels shall be reduced by means of engineering or administrative controls, including isolation, enclosure, and application of noise-reduction materials.

1.380 Training

A training program shall be provided for all employees who are exposed to noise at or above an 8-hour TWA of 85 decibels. The training shall be provided initially and repeated annually for each employee. Employees shall be trained and have access to information and training materials regarding hearing protection.

Training shall include:

- The effects of noise on hearing,
- The purpose of hearing protection,
- The advantages and disadvantages and attenuation of various types of protection,
- Instruments on selection, fitting, use, and care of protection, and
- Techniques for selection, use, and the purpose of audiometric testing along with an explanation of the test procedures.
- The company is required to provide affected company workers exposed to the action level of the Occupational Safety and Health Administration's (OSHA's) of 85dBA of noise as calculated as an eight-hour time-weighted average (TWA), with appropriate hearing protectors at no cost to the company employees

Training shall be updated to stay current with any changes in processes.

1.381 Hearing Protection

Hearing protection shall be available to and worn by all employees exposed to an 8-hour TWA of 85 decibels or greater at no cost to the employee. Hearing protection shall be replaced, as necessary.

Each company employee who is exposed to noise at or above 85dBA as calculated as an eight-hour time weighted average (TWA) must be included in the hearing conservation program.

Hearing protection shall be evaluated for the specific noise environments in which the protection will be used.

Employees shall be given the opportunity to select their hearing protection from a variety of suitable hearing protectors provided by the Company.

Hearing protection shall be worn by any employee that has been provided hearing protection. Employees shall wear hearing protection in signed areas while at a host facility.



VRG Controls LLC
Noise Awareness, Exposure, and Hearing Conservation Program

Unless a physician determines that the standard threshold shift is not work related or aggravated by occupational noise exposure, the following steps shall be taken:

- Employees not using hearing protectors shall be fitted with hearing protectors, trained in their use and care, and required to use them.
- 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.
- Employees shall be referred for a clinical audiological evaluation or an otological examination, as appropriate, if additional testing is necessary or if it is suspected that a medical pathology of the ear is caused or aggravated by the wearing of hearing protectors.

The company is responsible for ensuring proper initial fitting of hearing protection and for supervising the correct use of all hearing protection.

1.382 Monitoring

Noise measuring shall be done to see if employees are being exposed to noise that is 85 decibels or louder on an 8-hour TWA. This measuring can be either sampling performed when needed or monitoring performed all the time.

Monitoring shall be repeated whenever a change in production, process, equipment, or controls increases noise exposures to the extent that additional employees may be exposed at or above the action level or the attenuation provided by hearing protectors being used by employees may be rendered inadequate.

1.383 Audiometric Testing

Employees who are exposed to noise that is 85 decibels or louder on an 8-hour TWA shall have hearing tests (also called audiograms or audiometric testing) available to them at no cost to the employees. These tests help by showing any hearing loss that might be happening and shall be done every year after the baseline test.

A baseline, or initial, hearing test shall be done within 6 months if an employee has been exposed to noise that is 85 decibels or louder on an 8-hour TWA. 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 be notified of the need to avoid high levels of noise.

If a mobile testing van for hearing tests is used, the baseline can be established within one year.



<p>VRG Controls LLC</p> <p>Noise Awareness, Exposure, and Hearing Conservation Program</p>
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At least annually after obtaining the baseline audiogram, a new audiogram shall be obtained for each employee exposed at or above an 8-hour TWA of 85 decibels. Each employee's annual audiogram shall be compared to that employee's baseline audiogram to determine if the audiogram is valid and if a standard threshold shift has occurred. If a comparison of the annual audiogram to the baseline audiogram indicates a standard threshold shift, the employee shall be informed of this fact in writing within 21 days of the determination.

1.384 Signage

Equipment or areas with noise levels equal to or exceeding 85 decibels shall be identified with labels or signs, which are posted on the individual pieces of equipment (whether owned or leased) or at the entrance to noisy areas. The sign or label shall state either "Hearing Protection Is Required While the Equipment Is Operating" or "Hearing Protection Is Required While Working in the Area" or similar wording, as appropriate.

Equipment typically requiring labels includes but is not limited to compressors, forklifts, generators, and pneumatic tools.

Labels shall be placed where the operator can readily see the warning, such as next to power switches.

1.385 Recordkeeping

Accurate records of all employee exposure and audiometric measurements shall be maintained as required by the regulation. The record shall include:

- Name and job classification of the employee.
- Date of the audiogram.
- The examiner's name.
- Date of the last acoustic or exhaustive calibration of the audiometer.
- Employee's most recent noise exposure assessment.

Noise exposure measurement records shall be retained for 2 years. Audiometric test records shall be retained for the duration of the affected employee's employment.

All records shall be provided upon request to employees, former employees, representatives designated by the individual employee, and the Assistant Secretary.

If the company ceases to do business, all records shall be transferred to the successor company for retention.



**VRG Controls LLC
Driver and Vehicle Safety Program**

36. DRIVER AND VEHICLE SAFETY PROGRAM

1.386 Purpose and Scope

The purpose of this program is to provide guidelines to eliminate injuries resulting from vehicle use.

This program applies to all VRG Controls LLC employees that drive for Company business.

1.387 Resources

Number	Title
49 CFR 380	Transportation – Special Training Requirements

1.388 Driver and Vehicle Safety

Any accident involving a company vehicle, even though minor, involves potential personal injury and affects the safety and well-being of our employees, customers, and other drivers.

Vehicle accidents are costly and time consuming. They have a definite bearing on operational costs and often reflect basic conditions for other potential losses leading to increased insurance costs.

Safety is one of the most important and critical elements of success and is an element considered at each performance review. Drivers shall take personal responsibility for the safe operation of their vehicle.

Vehicles should be operated only:

- When the vehicle is in good, safe mechanical condition.
- When the driver feels capable of driving safely.
- In accordance with all traffic laws, signals, and markings, with additional consideration for weather and traffic conditions.
- In accordance with the principles of defensive driving with the driver always being on the alert and prepared to compensate for unpredictable actions of other drivers and pedestrians.
- In a courteous manner at all times, with consideration for the rights of other drivers and pedestrians.

It is expected that each employee does their part towards the success of this program.



VRG Controls LLC Driver and Vehicle Safety Program

1.389 Driver Eligibility Requirements

The following requirements are applicable to all drivers:

- Must be at least 23 years of age, and no more than 65 years of age pending annual health certification in accordance with USDOT.
- Must have at least one year of verifiable driving experience in type of vehicle to be operated.
- Must have no major violations within the past 36 months. (Refer to list of major / minor violations below).

Employees with the following are not acceptable to drive:

- More than one minor violation within the past 12 months.
- More than two minor violations within the past 24 months.
- More than three minor violations within the past 36 months.

1.390 Major and Minor Violations

1.390.1 Major Violations

Leaving the scene of an accident.

DUI or DWI.

Hit and Run.

Reckless driving or conduct.

Felony with vehicle.

Racing or dragging.

Excessive speed; 20 or more miles per hour over posted limit.

Eluding police.

Passing a school bus.

Allowing a DUI or DWI or unlicensed person to drive.

Driving with a suspended, revoked, or fraudulent license.

Failure to report or making a false report of an accident.

At-fault accident involving a citation.



VRG Controls LLC Driver and Vehicle Safety Program

1.390.2 Minor Violations

Any moving violation other than as noted above.

Speeding; 19 or fewer miles per hour over posted limit.

Violation of traffic control device.

Lane violation.

Failure to yield.

Following too close.

At-fault accident not involving a citation.

1.391 Verification of Driving Record

1.391.1 Motor Vehicle Records

Each applicant's driver license will be verified at the time of employment and a copy of the applicant's Motor Vehicle Record (MVR) will be obtained at hire, and annually thereafter, to ensure that employees maintain good driving records.

MVRs shall be obtained for each employee whose job description requires driving a company owned or operated vehicle.

MVRs are to be evaluated according to the above Driver Eligibility Requirements.

MVRs will be obtained:

- Prior to employment.
- After involvement in an accident or receiving a citation.
- Any other time management deems it advisable.

1.391.2 Driver's Licenses

Revocation or suspension of a driver's license must be reported immediately.

Only one valid driver's license is to be held by an employee at any time. The current license must be issued in the driver's state of residence, or, if required by state law, the license will be issued in the state where the person is gainfully employed. A copy of the driver's license will be maintained in the driver's file. License verification of employees is made via a Motor Vehicle Record report (DMV printout).



VRG Controls LLC Driver and Vehicle Safety Program

Driver's licenses will be checked for the following:

- The state of issue.
- Date issued.
- Date of expiration.
- Restrictions.
- Violations (if in a state where violations are listed on the license).
- Any evidence of alteration or mutilation.

1.392 Driver Responsibility

All motor vehicle violations and accidents in company and personal vehicles, must be reported to management as soon after the accident as practical. Failure to do so may result in disciplinary action up to and including termination of employment.

It is every driver's responsibility to drive defensively to avoid accidents and safely maintain each vehicle under the driver's control. Defensive driving is defined as "Driving to avoid accidents in spite of the incorrect actions of others, and the adverse conditions of weather, visibility, light, and traffic that the driver may encounter on the road". Failure to operate a vehicle safely may result in a suspension of driving duties or termination of employment.

A "preventable accident" is one in which the driver failed to exercise reasonable precautions to prevent the accident. Preventable accidents are defined in the National Safety Council's "Guide for Determining Preventability of Motor Vehicle Accidents".

The Accident Review Committee will review each vehicle accident and a determination of preventability made. Drivers with unacceptable driving records will be subject to a progressive disciplinary procedure. Poor driving behavior can result in remedial training, days off without pay, reassignment to a non-driving job, or termination of employment.



VRG Controls LLC Driver and Vehicle Safety Program

1.393 Driver Privilege

Only qualified and reliable employees with safe driving records are permitted to drive company vehicles. If adverse driving behavior, such as accident involvement, repeated violations of traffic laws, or poor vehicle condition and maintenance is experienced, drivers will be subject to a progressive disciplinary procedure.

The following are minimum guidelines for appropriate, graduated driver discipline for accidents occurring in company vehicles:

- One preventable accident in one year: written warning with one day post-accident retraining at corporate office with pay.
- Two preventable accidents within one year: written warning with one day post-accident retraining at corporate office with pay, and subject to transfer to a non-driving assignment or termination of employment.
- Three preventable accidents within one year: termination of employment.
- Two preventable accidents within 2 years: written warning with one day post-accident retraining at corporate office with pay.
- Three preventable accidents within 3 years: transfer to non-driving job or termination of employment.

Generally, an accident in which over \$500.00 in damage occurs will result in a suspension. If a pattern of non-suspension accidents develops, potential disciplinary procedures could result in termination.

1.393.1 Rear End Collisions

Rear end collisions are one of the most devastating types of crashes involving commercial motor vehicles. If a large truck rear ends a passenger vehicle, the sheer force of impact is enough to cause a catastrophic result. If you strike another vehicle from behind, chances are you will be at fault.

Many of these types of collisions are preventable since most are caused by driver error. You can reduce your risk of being in a rear end collision by staying alert, driving defensively, and by leaving plenty of space between your vehicle and the vehicle in front of you.

Because the liability exposure is so high in a rear end collision, there is a Zero Tolerance Policy regarding these types of incidents. If an employee is found to be at-fault in a rear end collision, employment will be terminated.



VRG Controls LLC Driver and Vehicle Safety Program

1.394 Accident Scene Actions

Despite best efforts to avoid accidents, they can happen so employees must be prepared. The following actions shall be taken in the event of an accident:

- Stop immediately.
- If you are not injured, protect the accident scene to prevent other vehicles from becoming involved. Put out emergency reflectors or flares.
- Call for help and the police if necessary.
- Notify your supervisor or manager.
- Take photographs of the accident scene, if possible.
- Complete a Driver's Report.
- Hand out witness cards and get names, addresses, and telephone numbers of witnesses.
- Do not admit liability at the accident scene.

In many cases, determining fault for an accident is done only after extensive investigation. Be courteous to others at the scene, but never take the blame. Let the investigators determine that. Also, do not discuss the details of the accident with anyone other than a licensed authority such as a police officer or insurance company representative, without getting prior approval from management.

Upon return to work, submit the report to management.

1.394.1 Rules of Conduct

Obey all traffic laws.

Be courteous to other drivers and pedestrians.

Maintain at least a 3-second following distance from the vehicle ahead under excellent driving conditions; 4-seconds if over 40 mph. If adverse conditions of road traffic are encountered such as light, visibility, or weather, add a second or two for good measure.

Help other drivers to safely negotiate the highway. If it is safe to do so, allow other drivers to merge into your lane by backing off and letting them in. This applies at freeway on ramps as well. This courtesy will help avoid accident involvement and make the highway a more pleasant place to be.

Always use the GOAL principle (Get Out And Look) when backing or driving under an object.



VRG Controls LLC Driver and Vehicle Safety Program

1.395 Vehicle Use Policy

Company vehicles are intended to be used for company use only. Personal use is strictly prohibited unless prior permission is granted by management. When assigned a company vehicle, its use is restricted to the assigned driver only. Use by family members or non-employees is not permitted.

1.396 Seatbelt Use Policy

Use of seatbelts by drivers and all occupants of the vehicle is mandatory. Studies have shown that injuries are reduced or completely avoided when seatbelts are worn.

1.397 Driver Education

Each employee who is assigned a company vehicle, or whose job description necessitates the frequent use of a company vehicle, must pass the company's new hire training and safety course.

Monthly driver safety meetings will be conducted. At least one safe driving topic will be discussed each month with driving employees. Meetings will be regularly scheduled and documented on a prescribed form as to the date of the meeting, topic(s) discussed, and the names of drivers attending.

1.398 Vehicle Maintenance

All company vehicles are operated under a full maintenance program. Any malfunctions or safety concerns should always be reported to a supervisor and noted on a Vehicle Inspection Report (VIR) to ensure repairs are made.

Part of the driver's daily routine includes a pre-trip and post-trip inspection of the vehicle using a company provided VIR. Turn in a copy of the VIR at the end of the shift.

Keep the cab clean. Cleaning supplies such as paper towels, spray cleaner, and whisk brooms to help maintain the condition of the cab and create a safe workplace will be provided. Loose papers, soda cans or bottles, and other unnecessary items in the cab can be hazardous.



VRG Controls LLC Driver and Vehicle Safety Program

1.399 Departure Procedures

Never pull away from the dock without:

- Verbally communicating intentions to pull away from the dock with the forklift driver.
- Disengaging the dock plate from the rear of the trailer (or truck).
- If one exists, securing the safety chain across the dock opening.
- Closing the dock roll-up door.
- Following any other dock procedures required by the customer.

1.400 Smoking Policy

Because of the obvious health and safety concerns, and out of courtesy for other employees, smoking is not permitted in company vehicles (cab or box) or at customer facilities.

1.401 Securing Company Vehicles Policy

Employees are required to abide by the following:

- Except during loading or unloading, cargo doors on trailers and straight trucks shall be locked with a padlock or other approved locking device.
- Doors on company vehicles shall be locked when not attended.
- At the beginning of each shift, inform a supervisor if the cab of the assigned truck is found unlocked or if the cargo door is not secured by a padlock or other approved locking device.
- At the end of each shift, ensure that the assigned vehicle is properly secured by locking all doors.

If an employee is found to be in non-compliance with locking vehicles, the following will apply:

- Employee will be suspended for 5 days without pay.

If loss due to theft or vandalism occurs because of non-compliance the employee will face disciplinary action up to and including termination of employment.



VRG Controls LLC Driver and Vehicle Safety Program

1.402 Cell Phone Usage

Driving is a serious responsibility that demands and deserves full attention. Driver distractions may occur anytime, anywhere. A distraction is anything that takes your attention away from driving, such as cell phone use.

Studies have proven the risk of having an accident increases by 400% every time a cell phone is used when driving.

The use of company issued cell phones or radios is on an as needed basis and only when it is safe to do so. Personal use of these units is prohibited.

Many state laws prohibit the use of cellular phones while operating a motor vehicle without the presence of a hands-free device.

The use of personal cell phones while on duty is strictly prohibited while driving a company vehicle, operating a forklift, working in a warehouse, and/or any other safety sensitive position.

Disciplinary actions, when required, will be based on the severity, frequency, and overall impact of the infraction. Potential disciplinary actions are as follows:

- Verbal Warning
- Written Warning
- Suspension without pay
- Termination



VRG Controls LLC Electrical Program
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37. ELECTRICAL PROGRAM

1.403 Purpose and Scope

The purpose of this program is to define the safety requirements that all employees shall adhere to when working with electrical equipment.

This program applies to all VRG Controls LLC employees working with electrical equipment.

1.404 Resources

Number	Title
29 CFR 1910 Subpart S	Electrical

1.405 Electrical Program

Electricity is dangerous when used without proper training, knowledge, and planning. The following basic safety principles provide guidance to use electricity safety prior to the start of work.

Safe 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.

1.406 Training / Qualification

Employees who face a risk of electric shock but who are not qualified persons shall be trained and familiar with electrically related safety practices. The training shall be of the classroom or on-the-job type. The degree of training provided shall be determined by the risk to the employee.

Only qualified persons may work on electric circuit parts or equipment that have not been deenergized. Such persons shall be made familiar with the use of special precautionary techniques, personal protective equipment (PPE), insulating and shielding materials, and insulated tools.



VRG Controls LLC Electrical Program
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Qualified persons shall, at a minimum, be trained in and familiar with:

- The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment.
- The nominal voltage of exposed live parts.
- The clearance distances and the corresponding voltages to which the qualified person will be exposed.

The training shall be of the classroom or on-the-job type. The degree of training provided shall be determined by the risk to the employee.

Employees who face a risk of electric shock but who are not qualified persons shall be trained and familiar with electrically related safety practices. Employees shall be trained in safety related work practices including clearance distances that pertain to their respective job assignments.

1.407 Deenergizing Equipment

Live parts to which an employee may be exposed shall be deenergized before the employee works on or near them unless it can be demonstrated that deenergizing introduces additional or increased hazards or is infeasible due to equipment design or operational limitations.

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. Employees must treat conductors and parts of electric equipment that have been deenergized but have not been locked out, tagged, or both as energized parts.

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

A qualified person shall operate the equipment operating controls or otherwise verify that the equipment cannot be restarted, verify that the circuit elements and equipment parts are deenergized and 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.

1.408 Reenergizing Equipment

A qualified person shall conduct tests and visual inspections to verify that all tools, electrical jumpers, shorts, grounds, and other such devices have been removed. Employees exposed to the hazards shall be warned to stay clear of circuits and equipment. Each lock and tag shall be



VRG Controls LLC Electrical Program
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removed by the employee who applied it. There shall be visual determination that all employees are clear of the circuits and equipment.

1.409 Overhead Lines

If work is to be performed near overhead lines, the lines shall be deenergized and grounded or other protective measures shall be provided before work is started.

When an unqualified person is working in an elevated position near overhead lines, the location shall be such that the person and the longest conductive object which may be contacted cannot come closer to any unguarded, energized overhead line than the following distances:

- For voltages to ground 50kV or below - 10 feet
- For voltages to ground over 50kV - 10 feet plus 4 inches for every 10kV over 50kV

When an unqualified person is working on the ground in the vicinity of overhead lines, the person may not bring any conductive object closer to unguarded, energized overhead lines than the following distances:

- For voltages to ground 50kV or below - 10 feet
- For voltages to ground over 50kV - 10 feet plus 4 inches for every 10kV over 50kV

Any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines shall be operated so that a clearance of 10 feet is maintained. If the voltage is higher than 50kV, the clearance shall be increased 4 inches for every 10kV over that voltage.

When a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person shall not approach or take any conductive object without an approved insulating handle closer to exposed energized parts than shown in Table S-5 in the Appendix. Program shall contain approach distances for qualified employees.

1.410 Illumination

Employees shall not enter spaces containing exposed energized parts unless illumination is provided that enables the employees to work safely. Where lack of illumination or an obstruction precludes observation of the work to be performed, employees shall not perform tasks near exposed energized parts. Employees shall not reach blindly into areas which may contain energized parts.



VRG Controls LLC Electrical Program
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1.411 Confined Spaces

When an employee works in a confined or enclosed space that contains exposed energized parts, the following shall be provided and used:

- 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.

1.412 Conductive Materials and Equipment

Conductive materials and equipment that are in contact with any part of an employee's body shall be handled in a manner that will prevent them from contacting exposed energized conductors or circuit parts. If an employee must handle long dimensional conductive objects (such as ducts and pipes) in areas with exposed live parts, work practices (such as the use of insulation, guarding, and material handling techniques) which will minimize the hazard shall be instituted.

Portable ladders shall have nonconductive siderails if they are used where the employee or the ladder could contact exposed energized parts.

Conductive articles of jewelry and clothing shall 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.

1.413 Housekeeping

Where live parts present an electrical contact hazard, employees shall not perform housekeeping duties at such close distances to the parts that there is a possibility of contact unless adequate safeguards are provided.

Electrically conductive cleaning materials shall not be used in proximity to energized parts unless procedures are followed which will prevent electrical contact.



**VRG Controls LLC
Electrical Program**

Appendix 19

Approach Distances for Qualified Employees

TABLE S-5 - APPROACH DISTANCES FOR QUALIFIED
EMPLOYEES - ALTERNATING CURRENT

Voltage range (phase to phase)	Minimum approach distance
300V and less	Avoid Contact
Over 300V, not over 750V	1 ft. 0 in. (30.5 cm).
Over 750V, not over 2kV	1 ft. 6 in. (46 cm).
Over 2kV, not over 15kV	2 ft. 0 in. (61 cm).
Over 15kV, not over 37kV	3 ft. 0 in. (91 cm).
Over 37kV, not over 87.5kV	3 ft. 6 in. (107 cm).
Over 87.5kV, not over 121kV	4 ft. 0 in. (122 cm).
Over 121kV, not over 140kV	4 ft. 6 in. (137 cm).



VRG Controls LLC
Electrical Safety Awareness Program

38. ELECTRICAL SAFETY AWARENESS PROGRAM

1.414 Purpose and Scope

The purpose of this program is to define the minimum requirements that all employees shall adhere to when using electrical equipment.

This program applies to all VRG Controls LLC employees working with electrical equipment.

1.415 Resources

Number	Title
29 CFR 1910 Subpart S	Electrical
Cal/OSHA T8 CCR Subchapter 5	Electrical Safety
Cal/OSHA T8 CCR Subchapter 4	Construction Safety

1.416 Electrical Safety Awareness Program

Electricity is dangerous when used without proper training, knowledge, and planning. The following basic safety principles provide guidance to use electricity safely prior to the start of work.

Safe 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.

1.417 Training / Qualification

Employees performing electrical work shall be trained in electrical safety-related work practices that pertain to their respective job assignments. All employees shall be trained in any electrically related safety practices which are necessary for their safety.

Only qualified persons may work on electric circuit parts or equipment that have not been deenergized. Such persons shall be capable of working safely on energized circuits and shall be familiar with the proper use of special precautionary techniques, personal protective equipment (PPE), insulating and shielding materials, and insulated tools.

Employees who face a risk of electric shock but who are not qualified persons shall be trained and familiar with electrically related safety practices. Employees shall be trained in safety related work practices including clearance distances that pertain to their respective job assignments.



VRG Controls LLC Electrical Safety Awareness Program

1.418 Safe Work Practices

Safe 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.

Live parts to which an employee may be exposed must be deenergized before the employee works on or near them unless deenergizing the parts introduces additional or increased hazards or is unfeasible due to equipment design or operational limitations. Examples of increased or additional hazards include interruption of life support equipment, deactivation of emergency alarm systems, shutdown of hazardous location ventilation equipment, or removal of illumination for an area. Live parts that operate at less than 50 volts to ground need not be deenergized if there are no increased exposures to electrical burns or to explosions due to electric arcs.

Conductors and parts of electrical equipment that have been de-energized but not locked or tagged out shall be treated as live parts.

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.

Employees shall not enter spaces containing exposed energized parts unless illumination is provided which enables the employees to work safely.

Protective shields, protective barriers, or insulating materials as necessary shall be provided.

Portable ladders shall have nonconductive siderails if they are used where the employee or the ladder could contact exposed energized parts.

Conductive articles of jewelry and clothing (such as watch bands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear) shall 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.



VRG Controls LLC Electrical Safety Awareness Program

1.419 Power Lines

Assume that all overhead wires are energized at lethal voltages. Never assume that a wire is safe to touch even if it is down or appears to be insulated.

The lines shall be de-energized and grounded or other protective measures shall be provided before work is started.

Never touch a fallen overhead power line. Call the electric utility company to report fallen electrical lines.

Stay at least 10 feet away from overhead wires during cleanup and other activities. If working at heights or handling long objects, survey the area before starting work for the presence of overhead wires.

If an overhead wire falls across your vehicle while you are driving, stay inside the vehicle and continue to drive away from the line. If the engine stalls, do not leave your vehicle. Warn people not to touch the vehicle or the wire. Call or ask someone to call the local electric utility company and emergency services.



VRG Controls LLC Emergency First Aid Program

39. EMERGENCY FIRST AID PROGRAM

1.420 Purpose and Scope

The purpose of this program is to provide information on the use and need for emergency first aid which includes universal precautions.

This program applies to all VRG Controls LLC employees.

1.421 Emergency First Aid – Universal Precautions

First aid is medical attention usually given immediately after an injury happens while the victim is still at the location where they were injured.

According to OSHA, millions of workplace injuries occur each year. With numbers that high, at some point most employees will most likely see or be involved in a situation that requires first aid.

1.422 Requirements

There must be at least one employee trained in first aid and cardiopulmonary resuscitation (CPR) on every shift if there no clinic or hospital nearby.

A first aid equipment and an ANSI-approved first aid kit must be provided. The first aid kit should have items that can treat the type of incidents that could happen at the workplace.

If an automated external defibrillator (AED) is provided, only employees who are trained on how to use an AED should use one.

If work with corrosive materials is conducted, eyewash stations and emergency showers for quick drenching or flushing in case an employee is exposed must be provided.

1.423 Universal Precautions

If employees are trained and must give first aid, they must practice universal precautions:

- Treat any bodily fluids as if infected.

Wear disposable gloves while giving first aid to protect from infection.



VRG Controls LLC Emergency First Aid Program

1.424 Providing First Aid

If an employee needs first aid, the first thing to do is check the surroundings:

- Look for anything that could put you and the injured employee in danger.
- Check for fires, toxic smoke or gases, an unstable foundation, and electrical wires.

Once the situation has been assessed, call 911.

When help is on the way, care for the injured employee if you are trained to do so.

Check for responsiveness by tapping the employee on the shoulder and shouting, "Are you okay?"

- If the person is responsive, ask about what happened.
- If the person is unconscious and facedown, roll the person face up while supporting their head, neck, and back.

Check the employee head to toe for injuries:

- Check the employees' circulation.
- Scan the employee's body for severe bleeding.
- Check for a medical alert tag. If the injured employee is wearing one, give this information to the 911 dispatcher and emergency medical services (EMS) when they arrive.

Monitor the employee for any changes and give first aid care only if trained to do so.

Once EMS arrives, relinquish your involvement in first aid care.

Report the incident and any exposures to your supervisor as soon as possible.



VRG Controls LLC Fleet Safety Program
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40. FLEET SAFETY PROGRAM

1.425 Purpose and Scope

The purpose of this section is to outline safe work practices for commercial motor vehicles.

This procedure applies to all VRG Controls LLC employees driving commercial motor vehicles.

1.426 Policy Statement

Our motor fleet safety program has been implemented to promote safe driving on and off the job. When properly implemented, this program can help reduce the frequency and severity of crashes and violations in our vehicle operations. Our focus is on reducing the financial burden of crashes and the accompanying human suffering. It is equally important that we present a strong public image of a company that puts safe drivers on the road.

We will properly select and train employees who drive on company business and we will keep well-maintained vehicles. The fleet coordinator has the responsibility for managing vehicle and driver safety issues. They have authority to implement our vehicle safety program and are accountable to management for its effectiveness.

Our fleet coordinator is responsible for investigating, documenting, contacting, and maintaining communication with our insurance carrier, and following up on automobile claims handling. Our fleet coordinator is also responsible for maintaining and complying with all DOT regulations regarding driver qualification, hours of service, vehicle maintenance, and cargo Securement.

Employees are required to immediately report all crashes and moving violations that occur during work-related activities, if they are driving a company-owned or personal vehicle on company business.

We will provide safe and reliable transportation to authorized drivers, and the resources for properly maintaining company vehicles. It is each driver's responsibility to ensure proper vehicle maintenance, exercise defensive driving habits, maintain a good driving record, and adhere to the company safe driving expectations and objectives of this program.

Employees who are authorized to drive personal vehicles on company business are expected to maintain their vehicles in safe operating condition, as well as provide the fleet coordinator with proof of liability insurance with minimum coverage that aligns with corporate risk management philosophy. All occupants of company vehicles and occupants of personally owned vehicles driven on company business must wear seat belts / restraints at all times.

We will adhere to all federal, state, and local laws governing vehicle operation.



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1.427 Commercial Motor Vehicle

A commercial motor vehicle (CMV) (CFR 49 §383.5) speaks directly to drivers and motor carriers that operate large vehicles and those who operate certain specialized types of vehicles. This definition covers both interstate and intrastate drivers and motor carriers.

1.428 Commercial Drivers

Drivers are required to obtain and hold a CDL if they operate in interstate, intrastate, or foreign commerce and drive a vehicle that meets one or more of the classifications of a CMV described below.

Classes of License and Commercial Learner's Permits (CLP)

Endorsements and Restrictions

Entry-level drivers are subject to the requirements in the Entry-Level Driver Training (ELDT) regulations. This applies to drivers seeking to:

- Obtain a Class A or Class B CDL for the first time;
- Upgrade an existing Class B CDL to a Class A CDL; or
- Obtain a school bus (S), passenger (P), or hazardous materials (H) endorsement for the first time.

1.429 Driver Training

New drivers will undergo a preliminary new employee orientation for new hires or transferred employees who now have driving responsibilities. Our fleet coordinator will determine a schedule of topics for regular continuing education.

Topics can include, but are not limited to:

- Company policies and procedures for operation of company-owned vehicles
- Safe driving objectives and company expectations
- Vehicle use and limitations for personal use
- Annual MVR checks and methods for management evaluation
- Cargo handling and security precautions
- Driver training and crash reporting/response procedures
- Vehicle maintenance and inspection requirements
- Concepts of safe driving



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- Territory and routes of expected travel
- License requirements (CDL, verification of physical/visual exams, etc.)

All other employees that drive a company vehicle or drive a personal vehicle for company business will go through a defensive driving course. This could include internal defensive driving or a recognized third-party driver training.

All drivers will also attend required daily safety meetings that should also include a driving topic.

Post crash or those receiving moving violations could also be required to attend additional training.

DOT drivers will also go through various additional training including:

- Hours of Service (Driver Logs)
- Drug and Alcohol Policy
- Cargo Securement
- Hazardous Materials
- Vehicle Maintenance (Vehicle Inspection)

1.430 Road Tests

Prior to employment in a position requiring driving on company business, the applicant will complete a driving test in the vehicle that they will most likely be driving. An employee or manager trained in administering road tests will conduct the road test. It is suggested that a road test be at least 20 miles in length over a planned route.

1.431 Driver Qualification Criteria

Driver applicants will not be considered for employment unless they meet the minimum requirements listed below.

- Possess a valid non-commercial driver's license with at least 2 years driving experience.
- Be at least 21 years old to operate a commercial motor vehicle interstate.
- Be able to read and speak English sufficiently to converse with the general public, to understand highway traffic signs and signals, to respond to official inquiries, and to make entries on reports and records.
- Be physically and mentally qualified to drive a company vehicle and possess a valid medical certificate as defined in 49 CFR Part 391.



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- Possess a current and valid commercial driver's license and proper endorsements for the type of commercial vehicle to be driven.
- Must not be disqualified to drive a commercial motor vehicle under the rules and regulations set forth in 49 CFR Part 391.15.
- Meets all of the requirements and be able to perform all of the tasks and essential duties of the job description.
- Have at least 2 years of verifiable driving experience with like-type vehicles.
- Have at least 5 years verifiable driving experience, if required to transport hazardous materials.
- Has not been convicted of any of the following major violations:
 - Being under the influence of alcohol as prescribed by state law;
 - Being under the influence of a controlled substance;
 - Having an alcohol concentration of 0.04 or greater while operating a CMV;
 - Refusing to take an alcohol test as required by a state or jurisdiction under its implied consent laws or regulations;
 - Leaving the scene of an accident;
 - Using the vehicle to commit a felony;
 - Driving a CMV when, as a result of prior violations committed operating a CMV, the driver's CDL is revoked, suspended, or cancelled, or the driver is disqualified from operating a CMV;
 - Causing a fatality through the negligent operation of a CMV, including but not limited to the crimes of motor vehicle manslaughter, homicide by motor vehicle, and negligent homicide; and
 - Using the vehicle in the commission of a felony involving manufacturing, distributing, or dispensing a controlled substance.
- Has not been convicted of any of the following serious violations:
 - Speeding excessively, involving any speed of 15 mph or more above the posted speed limit;
 - Driving recklessly, as defined by state or local law or regulation, including, but not limited to, offenses of driving a motor vehicle in willful or wanton disregard for the safety of persons or property;



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- Making improper or erratic traffic lane changes;
- Following the vehicle ahead too closely;
- Violating state or local law relating to motor vehicle traffic control (other than a parking violation) arising in connection with a fatal accident;
- Driving a CMV without obtaining a CDL;
- Driving a CMV without a CDL in the driver's possession; and
- Driving a CMV without the proper class of CDL and/or endorsements for the specific vehicle group being operated or for the passengers or type of cargo being transported.

1.432 Driver's Vehicle Inspection Reports (DVIR)

The written Driver's Vehicle Inspection Report (DVIR) must be completed at the end of each day's work on each vehicle operated. The report must be prepared, signed, and dated by the driver. If two drivers are on the vehicle, only one needs to sign the report. The following must be accomplished:

- The original DVIR is turned in with their paperwork at the days end.
- If defects that would affect safe operation are reported, the person making the repairs must sign the original and the truck copy of the inspection report. The next driver must sign the truck copy of the report to verify that the repairs were accomplished.
- A copy of the latest DVIR must be kept in the vehicle and the next driver must sign the vehicle copy during their pre-trip inspection.

1.433 Hours of Service

A motor carrier must not require or permit a driver to drive:

- More than 11 hours within a 14-hour, non-extendable window from the start of the workday, following at least 10 consecutive hours off-duty. This is known as the 11-Hour driving rule. This means that after drivers have taken 10 consecutive hours (or more) off-duty, they are eligible for another 11-hour driving period, provided there is not a violation of the "60/70 hours in 7/8 days" limitations.
 - Rest breaks. Driving is not permitted if more than 8 hours have passed since the end of the driver's last off-duty or sleeper-berth period of at least 30 minutes.
- May not drive after 60/70 hours on duty in 7/8 consecutive days.
 - A driver may restart a 7/8 consecutive day period after taking 34 or more consecutive hours off.



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- CMV drivers using the sleeper berth provision must take at least 8 consecutive hours in the sleeper berth, plus 2 consecutive hours either in the sleeper berth, off duty, or any combination of the two.

Most states have adopted the federal Hours of Service regulations. However, the weekly on-duty aggregate limits may have been increased for intrastate drivers. Drivers may not drive after 70 hours on duty in 7 consecutive days if the motor carrier does not operate CMVs every day of the week. If the motor carrier operates CMVs every day of the week, drivers may not drive after 80 hours on duty in 8 consecutive days. Drivers who have been off duty for 24 or more hours may reset their calculation of the 70 hour/7day or 80 hour/8day weekly on-duty aggregate totals.

1.433.1 Preparing a Driver's Log

You are exempt if you drive under 100-mile radius.

- The log is an hour-by-hour graph of the driver's activity for each day.
- The log must be kept current and turned in to the management upon completion of each trip.
- When delivering in a single town, a driver is authorized to lump all local delivery time together on line 4 and all local driving together on line 3. For example, if a driver makes deliveries in Athens, GA and spends 6 hours performing the task, the log entry might show:
 - Driving time from Atlanta to Athens (6 a.m. to 8 a.m.) is shown on line 3.
 - Off-duty (meal) 8 a.m. to 8:30 a.m. is shown on line 1.
 - Local delivery Athens, GA (8 a.m. to 1:30 p.m.) is shown on line 4, a total of 5 1/2 hours.
 - From 2:00 p.m. to 3:00 p.m., line 3 accounts for the total (one hour) of local driving in Athens, between the hours of 8 a.m. and 3:00 p.m. Using this method, the driver has accurately accounted for his/her time.
- All entries must be made by the driver.
- All required entries must be made on each log.
- Each log's hours must add up to equal 24 hours.
- The trip information numbers (load number or manifest number) must be put on logs daily.



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- If an hours violation occurs, it must be explained in the “Remarks” section of the log. This does not excuse the violation; however, it is required by D.O.T. The violation must not be resolved by falsifying the log.
- All entries must be true and correct.

1.433.2 Other Hours of Service Requirements

100-Mile Radius Driver:

Under certain conditions drivers that normally operate within a 100-air mile radius of the work reporting location are exempt from making a daily log according to D.O.T. regulations. All drivers must complete a log regardless of their trip distance.

Recapping Hours:

Even though this is not a D.O.T. requirement, a recap of hours is required for our drivers. It is very difficult to keep track of drivers' available hours during a 7 consecutive day period without maintaining a recap chart for each driver. By subtracting the total duty hours for the last 7 days from 70 the driver will know how many hours are available for on-duty time the next day.

1.434 Vehicle Use Policy

Company vehicles are intended to be used for company use only. Personal use is strictly prohibited unless prior permission is granted by management. When assigned a company vehicle, its use is restricted to the assigned driver only. Use by family members or non-employees is not permitted.

1.435 Cell Phone Usage

Driving is a serious responsibility that demands and deserves full attention. Driver distractions may occur anytime, anywhere. A distraction is anything that takes your attention away from driving, such as cell phone use.

Studies have proven the risk of having an accident increases by 400% every time a cell phone is used when driving.

The use of company issued cell phones or radios is on an as needed basis and only when it is safe to do so. Personal use of these units is prohibited.

Many state laws prohibit the use of cellular phones while operating a motor vehicle without the presence of a hands-free device.

The use of personal cell phones while on duty is strictly prohibited while driving a company vehicle, operating a forklift, working in a warehouse, and/or any other safety sensitive position.



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Disciplinary actions, when required, will be based on the severity, frequency, and overall impact of the infraction. Potential disciplinary actions are as follows:

- Verbal Warning
- Written Warning
- Suspension without pay
- Termination

1.436 Distracted Driving

Every day in the United States, approximately nine people are killed and more than 1,000 are injured in crashes that involve a distracted driver.

Distracted driving occurs any time you take your eyes off the road, hands off the wheel, and mind off your primary task—driving safely.

Any non-driving activity you engage in is a potential distraction and increases your risk of being involved in a motor vehicle crash.

Distracted drivers are more likely than all other drivers to:

- Have a near collision
- Fail to stop at an intersection
- Exceed the speed limit

Employees in many industries and occupations spend part of their workdays on the road. Motor vehicle crashes are the leading cause of work-related deaths in the US.

All employees are at risk of crashes, whether they drive light or heavy vehicles or driving is a main or secondary job.

1.436.1 Types of Distraction

There are three main types of distraction:

- Visual
- Manual
- Cognitive

Visual distractions are anything that take your eyes off the road in front of you, including:

- Reading a text message



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- Looking up directions
- “Rubbernecking”

Manual distractions are anything that requires you to take your hands off the wheel, including:

- Reaching for things inside the vehicle
- Using a handheld device
- Adjusting the radio or music apps
- Eating or drinking
- Applying makeup

Cognitive distractions are anything that interrupts your focus on driving, and can include:

- Talking on the phone
- Arguing with a passenger
- Thinking about your destination

1.436.2 Prevention

Take these steps to prevent distracted driving:

- Make necessary adjustments to your car, such as adjusting controls or programming your directions, before starting your drive.
- Do not reach to pick up items from the floor, open the glove box, or try to catch falling objects in the vehicle.
- Focus on the driving environment—the vehicles around you, pedestrians, cyclists, and objects or events that may mean you need to act quickly to control or stop your vehicle.

1.436.3 Phone Usage

Talking and texting on a cell phone are driving distractions. Texting is one of the most serious distractions.

Texting while driving can be a visual, manual, and cognitive distraction all at once. Your eyes are off the road reading your phone, your hand is off the wheel holding your phone, and your mind is off the road and focused on your phone.

Sending or reading a text takes your eyes off the road for 5 seconds. At 55 miles per hour, that is the equivalent of driving the length of a football field with your eyes closed.



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Hands-free phones are not necessarily safer than hand-held devices.

Drivers using handheld or hands-free cell phones are four times as likely to crash. The National Safety Council (NSC) estimates that cell phone use alone accounts for 27% of vehicular crashes.

1.436.4 Restrictions

The following restrictions are in place to prevent distracted driving:

- Handheld phone use, including calling, texting, email, etc., while driving a company vehicle is prohibited.
- The use of a company-issued phone while driving a personal vehicle is prohibited.
- Hands-free phone use while driving a company vehicle is prohibited.
- Employees shall pull over in a safe location if they must text, make a call, send an email, or look up directions.

1.437 Substance Abuse

Employees are strictly prohibited from operating a motor vehicle while under the influence of drugs or alcohol. This includes:

- Blood alcohol level at or above the local legal limit,
- Illegal drugs, including marijuana, and
- Prescription medications that cause drowsiness or other conditions that may cause impairment. Employees taking prescription medication that may impact their safety shall report this to their supervisor.

1.438 Drug and Alcohol Screening

All commercial driver applicants will submit to a drug/alcohol screening before an initial offer of employment is extended. Only the designated drug/alcohol testing facility will be used.

Drug/alcohol test results from the commercial driver applicant's previous employer will not be accepted. A negative test result is a condition of employment. No driver applicant will perform any work or activity until a negative test result has been obtained for the driver applicant. Be advised that marijuana remains a drug listed in Schedule I of the Controlled Substances Act. It is unacceptable for any employee subject to drug testing under the DOT's drug testing regulation to use drugs or alcohol medicinally or recreationally.

All applicants will be asked if they have tested positive, or refused to test, on any pre-employment drug and alcohol test administered by a previous employer. If the applicant admits



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to any of the above, without documented successful completion of DOT return-to-duty requirements, they will not be considered for employment.

All applicants who indicate no drug or alcohol violations must provide written consent for a drug and alcohol history to be obtained for the preceding 2 years from all DOT-regulated employers. If the applicant fails to provide this consent, they will not be considered for employment. Any positive indication of drug or alcohol use at the following levels will immediately disqualify the applicant:

- Alcohol test with a result of 0.04 or higher;
- Verified positive drug test;
- Verified adulterated or substituted drug test results; and
- Violations of DOT agency drug and alcohol testing regulations.

Applicants who have successfully completed DOT return-to-duty requirements after a drug or alcohol regulation violation will continue through the hiring process.

A driver may be required to take a controlled substance/alcohol test for any of five reasons. More information regarding controlled substances (i.e., testing is presented in Drug and Alcohol Testing Policy.

- Pre-employment.
- Reasonable Suspicion: Drivers will be required to take a test when the company requests it with good cause.
- Random: The company program must randomly test at least half of the drivers each year for drugs and 25% for alcohol.
- Post-Accident: Drivers involved in reportable accidents must be tested within 32 hours of the accident for drugs and 2 hours for alcohol.
- Return-to-Duty and follow-up: Drivers who are returned to work after successfully completing a Company approved rehabilitation program are subject to continued testing.

1.439 DOT Clearinghouse Requirements

The FMCSA Clearinghouse mandate is a new law that mainly impacts employers of CDL drivers.

Clearinghouse is a mandatory database with real-time information on drug and alcohol violations of CDL drivers. Violations must be reported to the Clearinghouse.



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Queries on CDL drivers must be conducted both annually (every 12 months since employment) and at pre-employment.

1.440 Motor Vehicle Records Requirements (MVR)

The Motor Vehicle Record (MVR) is a list of moving violations and crashes reported against a driver's license number for the past 3 to 5 years, in most states. The prospective driver may provide, in writing, a copy of their MVR once employment has been offered. A copy may be obtained, for a small fee, with the employee's permission by writing to the proper state Department of Motor Vehicles.

Drivers with unacceptable driving records may be subject to having job review and possible removal from positions requiring driving.

Drivers are required to report any crashes or moving violations to their supervisor immediately following the occurrence (including those occurrences while driving a personal car while on company business). Drivers are responsible for notifying their supervisor of final outcomes of violations.

As a condition of their continued employment as a company driver, an MVR will be obtained, at least annually, on all employees who drive on company business.

1.441 Qualification Files

As required by the DOT, the Company maintains a qualification file for all drivers.

No employee shall operate a company vehicle or any personal vehicle while on company business unless they are listed on the company's qualified driver list. This includes personal vehicles if used for company business.

The Company maintains a current list of qualified drivers and is required to provide this list to our insurance carrier annually and anytime changes are made to the list. This information is required for each driver:

- Driver application for employment
- Copy of driver's license
- Hire date
- Inquiry to previous employers in the past 3 years
- Inquiry to state agencies
- Medical examiner's certificate (medical waiver copy only)
- Driver's road test examination results



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- Certificate of road test*
- Annual MVR and review of driving record
- Annual driver's certificate of violations
- Annual review of driving record

Drivers will be issued copies of these certificates. Drivers only need to have a copy of the medical examiner's certificate in their possession while driving.

Qualification records for each commercial driver will be maintained for a minimum of 3 years after the driver's employment is terminated.



**VRG Controls LLC
Fleet Safety Program**

Addendum 1 Motor Vehicle Record (MVR) Evaluation and Corrective Action

1.1 Purpose

To establish a standardized process for evaluating driver Motor Vehicle Records (MVRs) to ensure that only qualified, safe, and responsible drivers are authorized to operate company or personal vehicles on company business. This procedure aligns with Travelers' MVR evaluation guidance and industry best practices for fleet risk control.

1.2 Scope

This section applies to all employees who operate company-owned, leased, or personally owned vehicles for company business purposes.

1.3 Evaluation Frequency

- An MVR will be obtained:
 - Prior to employment or authorization to drive on company business, and
 - Annually thereafter, or sooner if the employee is involved in a crash or receives a moving violation.
- MVRs will reflect three to five (3–5) years of driving history where available.
- The Fleet Coordinator is responsible for reviewing all MVRs and documenting the evaluation results.

1.4 Violation Classification

Type	Examples	Action Level
Major Violations	Driving under the influence (DUI/DWI), refusal of BAC test, reckless driving, fleeing police, leaving the scene of an accident, vehicular homicide, driving with a suspended or revoked license, racing, felony involving vehicle use	Immediate removal from driving duties
Minor Violations	Speeding (<20 mph over	Point accumulation (see grid



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	limit), failure to yield or obey signs, illegal turns, following too closely, improper lane change	below)
Non-Moving Violations	Parking citations, vehicle equipment violations, license not in possession	Not normally included in evaluation

1.5 MVR Evaluation Grid

The Fleet Coordinator will use the following grid to determine driver status based on the combination of preventable accidents and moving violations within the past three years:

Number of Violations	0 Accidents	1 Accident	2 Accidents	3+ Accidents
0 Violations	CLEAR	ACCEPTABLE	BORDERLINE	POOR
1 Violation	ACCEPTABLE	ACCEPTABLE	BORDERLINE	POOR
2 Violations	ACCEPTABLE	BORDERLINE	POOR	POOR
3+ Violations	POOR	POOR	POOR	POOR
Any Major Violation (past 5 years)	POOR	POOR	POOR	POOR



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1.6 MVR Point System

Each moving violation or preventable accident will be assigned point values. Total points are evaluated over a rolling three-year period.

Violation/Accident Type	Points
Operating a vehicle while on a mobile phone	2
Minor moving violation (stop sign, failure to yield, etc.)	3
Failure to wear seat belt	4
Speeding 0–10 mph over limit	2
Speeding 11–20 mph over limit	3
Speeding 20+ mph over limit	6–8
Reckless/negligent driving	8
Preventable backing or parking accident	1
Preventable moving accident	2–4
Major violation (DUI/DWI, fleeing, suspended license, etc.)	10



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1.7 Driver Risk Levels and Corrective Actions

Total Points (3-Year Period)	Risk Category	Corrective Action Guidelines
1-3	Low Risk	Generally, no action necessary. Continue monitoring.
4-5	Minor Risk	Fleet Coordinator reviews record; issue written warning and discuss improvement.
6-7	Borderline Risk	Written warning; mandatory defensive driving course within 30 days; follow-up review in 6 months.
8-9	Medium Risk	Written warning; behind-the-wheel training; potential loss of vehicle privileges; review by management.
10+	High Risk	Immediate revocation of driving privileges. Termination or reassignment if driving is an essential function.

1.8 Borderline Driver Program

Drivers identified as “Borderline” may retain driving privileges under these conditions:

- Completion of a defensive driving or safety course at their own cost (if applicable).
- No additional moving violations or preventable accidents for a 6-month monitoring period.
- Re-evaluation after six months by the Fleet Coordinator.

Failure to meet these conditions will result in removal from authorized driver status.



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1.9 Documentation

All MVR reviews, point totals, and corrective actions will be documented and maintained in the driver's qualification file for a minimum of three (3) years after employment termination. A current list of authorized drivers will be provided to the insurance carrier annually and upon any change in driver eligibility.

1.10 Disqualification Criteria

A driver shall be immediately disqualified from operating any vehicle on company business if they:

1. Have a major violation in the past five years;
2. Accumulate 10 or more points within three years;
3. Fail to complete required remedial training; or
4. Have repeated incidents of distracted driving or unsafe vehicle operation.

1.11 Reinstatement

A disqualified driver may be reinstated only after:

- Completing an approved remedial driving program,
- Maintaining a clean MVR for 12 consecutive months, and
- Approval from management and the insurance carrier.

1.12 Responsibility

The Fleet Coordinator shall:

- Conduct and document MVR reviews,
- Assign risk levels,
- Recommend corrective or disciplinary actions, and
- Maintain MVR evaluation records.

Supervisors shall ensure employees comply with all corrective actions and maintain safe driving performance.



VRG Controls LLC

Occupational Health and Safety Management System (OHSMS) - Global

41. OCCUPATIONAL HEALTH AND SAFETY MANAGEMENT SYSTEM (OHSMS) - GLOBAL

1.13 Purpose and Scope

The purpose of the Occupational Health and Safety Management System (OHSMS) is to establish a structured framework for managing occupational health and safety risks and ensuring the well-being of employees and other stakeholders.

This program applies to all VRG Controls LLC employees.

1.14 Audits

Internal OH&S management system audits provide an assessment of how well an organization is doing what their OH&S procedures and practices say. These audits are conducted according to planned arrangements. Additional audits are done if needed.

The impartiality and objectivity of an auditor is an important part of the auditing process. An auditor's role must be separate from their day-to-day role if the auditor is from inside the organization.

The results of an audit must be shared with managers (or other persons-in-charge) who have control over the area that was audited. If these people are not told about the results, then they will not be able to take action to correct any problems.

To have an effective OH&S management system, the company shares the results of the audit that affect workers. This does not mean all results are shared with all workers, but that results that affect a specific department or process are shared with that department's workers. This is because workers are one of the most important parts of an OH&S management system and keeping them informed helps make the system better.

1.15 Awareness & Communication

Employees must be informed that they have the right to remove themselves from an unsafe situation and may do so without any unwarranted consequences.

Employees must be explained the benefits of an OH&S management system and encouraged to participate in it to contribute to its effectiveness.

The requirements of the OH&S management must be explained to the employees as well as any consequences that may be upheld by not adhering to the requirements.

Information is communicated to the necessary internal and external parties using the predetermined process of all-hands meetings and toolbox talks.



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When communicating to internal and external parties, aspects such as language, culture, or disability are taken into account.

Employees from all levels must have relevant information disclosed to them to allow them to contribute any ideas or suggestions to improve the OH&S management system.

1.16 Competence

Process(es) are in place that allow employees to demonstrate the necessary competence to carry out their job or task.

Applicable actions include the provision of training, mentoring, re-assignment of currently employed persons, or hiring/contracting of competent persons.

Evidence that each employee has completed all of the requirements to carry out their job or task are documented and records stored.

1.17 Consultation & Participation

Resources shall be provided for effective consultation and participation of workers (and workers' representatives, if applicable) in the continual improvement of the OH&S Management System.

Access to information about the OH&S Management System shall be provided. This information must be relevant, timely, and clear, and understandable. Members of the organization, including non-managerial employees, must have this access.

Non-managerial employees shall be consulted in an effort to create, maintain and improve the OH&S Management System.

1.18 Document Control

A document management system (DMS) process shall be in place for document control and record retention. The process must include a process for handling revision numbers, document numbers, review dates, approvals and guidelines about where records should be kept.

Relevant versions of applicable documents should be available at areas where operations are being performed.

Obsolete documents and data must be promptly removed from all points of issue and points of use or otherwise assured against unintended use.

Documentation and data shall be legible and readily identifiable and be maintained in an orderly manner.



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1.19 Emergency Preparedness & Response

A plan is in place prior to an emergency event and all individuals expected to be impacted by the potential emergency are included in the training. This includes how first aid would be provided to ill or injured individuals.

Drills and tests are performed periodically to ensure the planned emergency response is conducted properly.

An evaluation of the emergency response plan, including after testing and after emergency situations, is performed and applicable revisions are made if necessary.

Any and all relevant information, including the duties and responsibilities of all workers during an emergency situation are communicated to them.

Information that is necessary for the preparation, response, or evacuation during emergency situations is documented and communicated to anyone, internal and external to the organization, that may be affected during the situation.

1.20 Incidents & Nonconformities

A process(es) for reporting, investigating, and taking action is used to determine and manage nonconformities. The process(es) defines how the investigation process should be handled.

Appropriate means are used to record the factual information and the results of the immediate investigation and the subsequent detailed investigation.

Communication of documented information to relevant workers, and, where they exist, workers' representatives, and other relevant interested parties is conducted.

Documented information shall include:

- the nature of the incidents or nonconformities and any subsequent actions taken
- the results of any action and corrective action, including their effectiveness

Corrective action is taken upon observation of accidents, incidents, or nonconformity and should allow for timely and adequate corrections for the situation.

Employees' involvement in the incident investigation is encouraged to determine the root cause if similar incidents have occurred, and if any nonconformities exist or can potentially exist.

Incident investigations should result in corrective actions, individuals are assigned responsibilities relative to the corrective actions, and these actions are tracked to closure.



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Occupational Health and Safety Management System (OHSMS) - Global

Elements of the hierarchy of controls include:

- elimination of the hazard
- substitution with less hazardous processes, operations, materials, or equipment
- using engineering controls and reorganization of work
- using administrative controls, including training
- using adequate personal protective equipment

The management of change process includes:

- new products, services and processes, or changes to existing products, services and processes
- changes to legal requirements and other requirements
- changes in knowledge or information about hazards and OH&S risks
- developments in knowledge and technology

The effectiveness of corrective action(s) and preventive action(s) taken for all incidents any nonconformities are reviewed.

1.21 Leadership & Commitment

Top management demonstrates its commitment by ensuring the availability of resources essential to establish, implement, maintain, and improve the OH&S management system. Resources may include human resources and specialized skills, organizational infrastructure, technology, and financial resources.

The company has established, implemented, and maintains processes for consultation and participation of employees at all levels at all applicable levels and functions. This includes:

- providing training and resources for participation
- providing timely, clear, understandable, and relevant information related to the OH&S Management system
- identify and remove barriers to participation (minimize those that cannot be removed)
- Emphasize the consultation of non-managerial workers where applicable
- Emphasize the participation of non-managerial employees where applicable



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Occupational Health and Safety Management System (OHSMS) - Global

Top management demonstrates leadership and commitment by ensuring that all workers are protected from retribution when they report incidents, hazards, risks, and opportunities to improve the OH&S management system.

The responsibilities and authority of all persons who perform duties that are part of the OH&S management system are defined, including clear definitions of responsibilities to help achieve the goals of the OH&S management system.

1.22 Management Review

In addition to internal audits, the management system is reviewed by top management. The review is done on a regular basis ("planned intervals"). This does not mean that reviews can only happen when they are scheduled to happen.

Management system reviews by top management decide if the management system is still suitable for the company and effective at meeting the goals in the OH&S Policy Statement.

Workers who are affected by the management system must know the results of the part of the management system review that affects them.

1.23 Occupational Health & Safety (OH&S) Policy

The company is committed to the prevention of injury and ill health for employees.

The company required to conform to applicable OH&S legislation and other OH&S requirements. An OH&S management system can assist an organization to fulfill its legal requirements and other requirements that it may be subject to.

All possible measures are taken to reduce or eliminate the amount of hazards and risks around the work areas, processes, and equipment to protect employees and other parties from injury or illness.

The program establishes targets that improve its OH&S performance and its OH&S management system, effectively and efficiently, to meet changing business and regulatory needs.

The intent of the program is to ensure involvement and commitment of employees is vital for successful OH&S. Employees need to be made aware of the effects of OH&S management on the quality of their own work environment and should be encouraged to contribute actively to OH&S management.

1.24 OH&S Objectives

OH&S objectives are created and maintained, at each relevant function and level within the organization, to display measurable success with the OH&S management system.



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Occupational Health and Safety Management System (OHSMS) - Global

Suitable indicators are defined for each OH&S objective. These indicators allow for the monitoring of the implementation of the OH&S objectives. OH&S objectives must be reasonable and achievable, in that the company has the ability to reach them and monitor progress. A reasonable and achievable time scale must be defined for the realization of each OH&S objective.

1.25 Performance Evaluation

Methods for monitoring, measuring, analyzing, and evaluating the performance of the OH&S management system are identified ensuring proper results are reported regarding the effectiveness of the system.

Establishing criteria to compare the performance of the OH&S management system is needed to determine if the system is meeting expectations or if change is needed in specific areas. These can be baselines against other organizations, standards and codes, or health and safety statistics for example.

A specified period of time in which the OH&S system should be monitored and measured has been established as annually.

A time frame must be specified in which the results of the monitoring and measuring of the OH&S management system should be evaluated and the results communicated with the appropriate parties.

1.26 Risks & Opportunities

The hazard identification process(es) must consider routine activities that create hazards through both day-to-day operations and non-routine activities that are occasional or unplanned. These include hazards arising from the infrastructure, materials, or physical conditions of the workplace, product or service design or development, human factors, and how the work is performed.

The procedure for hazard identification must consider all persons with access to the workplace and their activities. This includes workers, contractors, visitors, those in the vicinity of the workplace that could be affected by the organization's activities or other workers at the location who are not under direct control of the organization.

The organizations methodology and criteria for OH&S risks must be defined with respect to their scope, nature, and timing to ensure they are proactive. The process assesses OH&S risks from identified hazards while taking into account the effectiveness of existing controls and determining other risks related to the establishment or implementation of the OH&S management system.



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Occupational Health and Safety Management System (OHSMS) - Global

The process ensures that legal requirements are up-to-date and applicable to the hazards and risks associated with the OH&S management system. The requirements is communicated to the interested parties of the organization and taken into consideration for the continual improvement process of the OH&S management system.

The actions planned to address risk and opportunities must consider the different types of controls to be put in place and should involve the integration of other business processes to ensure there are no unintended consequences.

Documentation must be maintained on risks and opportunities, process(es) and actions necessary to determine and address its risks and opportunities, and information on its legal and other requirements.



VRG Controls LLC OSHA Inspections Program
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42. OSHA INSPECTIONS PROGRAM

1.27 Purpose and Scope

The purpose of this program is to provide information on types of OSHA inspections and procedures followed.

This program applies to all VRG Controls LLC employees.

1.28 OSHA Inspections

OSHA inspectors, or compliance safety and health officers (CSHOs), are experienced, well-trained industrial hygienists and safety professionals. Their goal is to:

- Make sure companies are compliant with OSHA requirements.
- Help companies and employees reduce hazards and prevent injuries, illnesses, and deaths in the workplace.

OSHA typically conducts inspections without giving a company advance notice.

1.29 Hazard Focus

OSHA focuses its inspection resources on the most hazardous workplaces in the following order of priority:

1. Imminent danger situations
2. Severe injuries and illnesses
3. Worker complaints
4. Referrals
5. Targeted inspections
6. Follow-up inspections

1.29.1 Imminent Danger Situations

Imminent danger situations are hazards that could cause serious physical harm or death. These situations are a top priority for OSHA inspections.

Compliance officers will ask companies to correct these hazards immediately or remove the employees in danger.



VRG Controls LLC OSHA Inspections Program
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1.29.2 Severe Injuries and Illnesses

Severe injuries and illnesses are also a top priority for OSHA inspections.

Companies must report:

- All work-related fatalities within 8 hours
- All work-related inpatient hospitalizations, amputations, or losses of an eye within 24 hours

1.29.3 Worker Complaints

Worker complaints of hazards or violations are another high priority for OSHA. Workers may request anonymity when they file complaints.

1.29.4 Referrals

Referrals of hazards from federal, state, or local agencies, individuals, organizations, or the media are considered for inspection.

1.29.5 Targeted Inspections

Targeted inspections aimed at specific high hazard industries or individual workplaces that have experienced high rates of injuries and illnesses also receive priority.

1.29.6 Follow-up Inspections

Follow-up inspections checking for abatement of violations cited during previous inspections are also conducted by the agency in certain circumstances.

1.30 Onsite Inspections

Onsite inspections have several distinct parts, starting with the presentation of the compliance officer's credentials, which include both a photograph and a serial number.

Companies have the right to require compliance officers to have an inspection warrant before entering the worksite.



VRG Controls LLC OSHA Inspections Program
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1.30.1 Opening Conference

During the opening conference, the compliance officer will:

- Explain why OSHA selected the workplace for inspection.
- Describe the scope of the inspection, walkaround procedures, employee representation, and interviews.

At this time, the company will select a representative to go along with the compliance officer during the inspection. Workers also have the right to have an authorized representative go on the inspection.

1.30.2 Walkaround

After the opening conference, the compliance officer and the representatives will conduct a walkaround of the workplace, inspecting for hazards that could lead to worker injuries or illnesses.

During the walkaround, compliance officers may point out violations that can be corrected immediately. These hazards still have to be cited, but quick correction is a sign of good faith on the company's part.

The compliance officer will also review worksite injury and illness records and the posting of the official OSHA poster.

1.30.3 Closing Conference

After the walkaround, the compliance officer will hold a closing conference with the company and the worker representatives to discuss the findings.

1.30.4 Citations and Fines

When a compliance officer finds violations of OSHA standards or serious hazards, OSHA may issue citations and fines. Citations:

- Describe the OSHA requirements allegedly violated
- List any proposed penalties
- Give a deadline for correcting the alleged hazards



<p style="text-align: center;">VRG Controls LLC OSHA Inspections Program</p>
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OSHA must issue a citation and proposed penalty within 6 months of when the violation occurred. OSHA and the company may work out a settlement agreement to resolve the matter and to eliminate the hazard.

Companies may formally contest the alleged violations and penalties by sending written notice to the OSHA Area Director within 15 working days of receiving them.

If the company does not settle or contest the citations, penalties, and abatement dates, they become final order.



VRG Controls LLC Painting Safety Program

43. PAINTING SAFETY PROGRAM

1.31 Purpose and Scope

The purpose of this program is to identify and address potential hazards associated with painting activities, such as exposure to harmful chemicals, inhalation of toxic fumes, and physical injuries.

This program applies to all VRG Controls LLC employees involved in painting operations.

1.32 Painting Safety

Painters apply coatings and paint to interior and exterior building surfaces with a variety of job sites, chemical use, and physical and ergonomic demands.

1.33 General

- Do not perform work in a heavily populated area, including building air intake areas, until appropriate warnings are posted, and occupants notified. If possible, rope off the immediate work area to prevent injury to bystanders.
- Protect your working area with warning flags and traffic cones when working road and traffic lines.
- When spraying roofs or building exteriors, have adequate barricades and signs to detour traffic.
- Eye protection is required whenever rust or loose paint is removed from surfaces with a wire brush. A hard hat is required if the work area is exposed to falling objects.
- To avoid splinters, always observe the condition of the wood before sanding.
- Store and dispense flammable solvents from approved safety cans only.
- Follow the manufacturer's instructions for handling all epoxy materials, thinners, catalysts, paint removers, etc. Gloves and respirators may be required.
- Clean all working areas after each job and/or shift.
- Make sure that you wash your hands thoroughly with soap and water before handling food.
- Inspect all ladders and scaffolds before beginning work.
- Make a safety check of all equipment such as staging tools, spray pots, hoses, fitting hooks, etc.



<p style="text-align: center;">VRG Controls LLC Painting Safety Program</p>

- An approved lifeline, independently fastened to the building above the worker, is required for each worker on a swinging scaffold, boatswain's chair, or unguarded slope 20 feet or more above ground level.
- Make sure that planks or ladder stages are long enough to extend well beyond the supports.
- Do not climb onto or use rolling-type scaffolds unless wheels are fully locked.
- Inspect all rope before use. Rope used around acid or caustics should be inspected frequently during use.
- Do not use fiber rope that cannot easily be bent or worked, or if fibers seem to be dry or brittle.
- Do not use fiber rope near sandblasting, or where there is exposure to chemical washing solutions.

1.34 Spraying

- An approved respirator should be worn when spray painting is being done.
- Do not paint in shops, chemical laboratories, chemical storage rooms, or similar locations without specific instructions from the supervisor of such locations.
- Do not perform spray painting in tanks, tunnels, or other confined spaces without specific permission from your supervisor. Appropriate breathing equipment, and/or controls are required for such work to assure that the atmosphere is safe.
- Do not break connections in pressurized air hose lines.
- Airless spraying with flammable materials should not be performed in confined areas unless there is sufficient ventilation to keep the atmosphere below the lower explosive limit of the material.
- Airless spraying with flammable materials may cause generation of static electricity. This will require grounding of both the spraying equipment and the object to be sprayed.
- Do not point an airless spray gun at any part of the body. Do not clean airless spray guns while there is pressure in the system.
- Inspect and clean all gauges, gaskets, and valves on all spray equipment to ensure that they are in good working order.
- Do not interfere with the mechanical operation of safety devices designed to protect you from contact with the spray under pressure.



<p style="text-align: center;">VRG Controls LLC Painting Safety Program</p>

- Do not leave rags saturated with paint or thinner lying around in a pile. In order to avoid a fire, see that these rags are left unfolded until they are properly aired out and then discard them in approved containers. Storage in a water filled container is recommended.
- Spontaneous ignition can occur if certain types of spray paint residues are permitted to mix or accumulate.
- Dispose of surplus paints and solvents by approved methods only.
- Removal of lead-based paint requires additional personal protective equipment, and air sampling to determine lead exposure.



VRG Controls LLC Pallet Jack Safety Program
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44. PALLET JACK SAFETY PROGRAM

1.35 Purpose and Scope

The purpose of this program is to educate and train employees on proper pallet jack usage, maintenance, and hazard identification.

This program applies to all VRG Controls LLC employees that work with or around pallet jacks.

1.36 Pallet Jack Safety

Pallet jacks, also known as pallet or pump trucks, can help you lift and move pallets of material. There are manual pallet jacks you operate by hand, and battery-powered models that can help lift and move heavier and stacked pallets. For maximum safety, use the right pallet jack for the job.

1.37 Safe Operation

Using manual and powered pallet jacks can result in many types of incidents. The most common injuries are crushing your own or another worker's feet and pinching your hands between an object or vehicle. Other hazards that can cause injuries and damage include rolling the wheels off the edge of ramps or loading docks, and rolling into walls, stacks, or other vehicles.

1.38 Training and Practice

Read the operator's guide. Training should be administered by an experienced operator. Training, certification, and authorization requirements are the same for powered or manual pallet jack operators and for forklift operators.

Practice maneuvering in an open area until you are comfortable using the controls and breaks.

1.39 Basic Operations

Most pallet jacks are low lift. As you raise the hydraulic jack, each fork separates from a small front wheel, forcing the load up enough to clear the floor for travel.

With a manual pallet jack, you use the handle to pump up the load and to steer as you push or pull.

Powered pallet jacks have a throttle on the handle or the control panel to move forward or, to go in reverse. Powered types include walking pallet jacks for operators on foot, or walkie-riders with a platform where you can stand or ride.



VRG Controls LLC Pallet Jack Safety Program
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1.40 Personal Protective Equipment (PPE)

Wear the right personal protective equipment (PPE) including heavy gloves to reduce cuts, bruises, and blisters on your hands and before you begin.

Steel toed footwear can prevent injury if you stub your toe, or if your feet are run over by a wheel or hit by material falling off the load.

Safety eyewear can prevent eye injuries when you work with material strapping, and when you move hazardous materials.

Wet or greasy hands or footwear should be avoided. They affect your grip on the handles, or cause slip and fall injuries.

1.41 Inspection

Before you start your shift, visually inspect the pallet jack, and use a written checklist to note any issues or concerns.

Focus on brakes, horn, controls, wheels, forks, and all other moving parts.

Check for fluid leaks and cracked or broken areas, especially on wheels, tires, and forks.

Do not use the pallet jack if you find any problems or defects, mark it out of service, and report all problems immediately.

1.42 Loading Docks

Loading docks can be especially hazardous as they are full of activity and material and vehicles pulling in and out of the dock. Before you enter a truck, trailer, or railcar:

- Make sure its brakes are set and wheel chocks are in place.
- Secure the bridge plate or dock port and inspect flooring for safety and load capacity.

1.43 Loading and Unloading Safety

To avoid damaging the pallet jack, pallet, or load, use caution when you position the forks and lift or lower the load.

Stack the load so it is centered on the pallet and stable. Do not overload. Reconfigure and secure unstable loads before traveling.

Position both forks completely under the pallet with the pallet against the backstop.

Stack and move loads so they will not block your line of vision. Use a spotter to help when you cannot see around a load.



VRG Controls LLC Pallet Jack Safety Program
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1.44 Travel Safety

Inspect your route before you move the pallet jack so you are aware of any hazards and obstructions.

Pallet jacks can be unstable so when using a powered jack, maintain a safe speed (a rule of thumb is about as fast as you can walk).

Keep movements and turns slow and steady to prevent the load from shifting or falling.

Slow down at aisle intersections, blind corners, and elevators. Sound the horn and give pedestrians the right of way.

Never operate in blind areas with empty forks. You can run into pedestrians or cause a trip and fall injury.

Always come to a complete stop before changing direction, lifting and lowering loads, or stepping off a walkie-rider.

Always park in areas away from exits, elevators, access to stairs, and emergency equipment such as fire extinguishers or eyewash stations.

1.45 Surface Conditions and Slopes

Use caution on wet or slippery floor surfaces that can cause you or the pallet jack to lose traction. If a load gets out of control, use the hydraulic release to immediately lower the load to the floor.

Make sure the load is centered on the pallet, stable, and secured.

On an incline or ramp, always travel with the load downgrade.

Do not turn or angle the pallet jack on ramps and inclines, as it could make the load tip over.

Enter tight areas and elevators with the load first to avoid being trapped between a wall and the pallet jack handle.

Keep your hands, feet, and other body parts inside the running lines or powered pallet jacks and keep your feet away from the front skirt and rider platform.

1.46 Horseplay

Never ride on manual or powered pallet jacks.

Never take a passenger on a pallet jack or a load.

Never use a powered pallet jack to push, tow, or hoist other pallet jacks.



VRG Controls LLC Pallet Jack Safety Program
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1.47 Ergonomic Considerations and Hazards

When loading, improve load stability by placing the heaviest units on the bottom layer. Keep in mind if you repeatedly bend forward at the waist, the awkward body posture combined with the unit's weight can put stress on your back. Bending your knees to lift and properly placed units will help to reduce the stress on your back but can be hard on your knees when done repeatedly. Generally, using powered equipment can reduce hazards over using manual equipment.

To reduce the risk of back injury, you can try:

- Using a heavy-duty lift pallet truck to raise loads to a comfortable waist high level.
- Placing a palletizer or stack several empty pallets on the forks to keep the product waist height.

To avoid stress and injuries to your hands, wrists, arms, and shoulders, be sure to:

- Have regular pallet jack maintenance performed so it operates with the minimum amount of hand, arm, and finger force.
- Keep floors well maintained to reduce whole body vibration from powered pallet jacks, and the force needed to work manual ones.
- Watch for early signs of mechanical breakdown and report difficulties before the problem leads to injury.

1.48 Pushing vs Pulling

Operators often pull rather than push a manual pallet jack because it seems easier to steer. If you think about the body mechanics (biomechanics) involved and spend some time practicing, you may find that pushing takes less effort and is easier on your lower back, arms, shoulders, and legs.

Pushing can be a better choice:

- The biomechanically preferred way to apply force is to push rather than pull a load. Pushing uses stronger leg muscles instead of back muscles and can reduce the risk of back injuries.
- To move a "dead" load, and keep it moving and in control, you must apply enough force to overcome the inertia of the resting load. Most operators tend to bend forward and use one arm to pull, which twists the torso, torques muscles in the lower back, and strains joints in the shoulder and elbow.

There are also risks associated with pulling:



<p style="text-align: center;">VRG Controls LLC Pallet Jack Safety Program</p>
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- A one arm pull can restrict peripheral vision on your leading arm side because your neck has to strain for you to look straight ahead. You may have a harder time seeing loads, objects, or people coming from that side.
- Pulling a pallet jack behind you increases the risk of your foot making contact with the wheels or the load, causing you to trip, fall, or even be rear-ended by your own load.
- It may not be possible to always push a manual pallet jack, limit pulling when you are positioning and not actually moving a loaded pallet around.



VRG Controls LLC Permit to Work Program
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45. PERMIT TO WORK PROGRAM

1.49 Purpose and Scope

The purpose of this program is to ensure risk reduction for high-risk and non-routine tasks.

This program applies to all VRG Controls LLC employees.

1.50 Requirements

A Safe Work Permit shall be issued for all high-risk and non-routine tasks. When performing low risk / routine tasks, the authorized permit issuer must be consulted to determine if a safe work permit is needed. Deviations from a work permit may apply in the event of an emergency.

A Safe Work Permit shall be issued and executed before work on a task begins. In certain situations, it may not be reasonably practical to issue the permit prior to work beginning. Any such exceptions should be authorized by the site supervisor.

Before the beginning of each shift, a thorough review of any active Safe Work Permits shall be completed.

If the work scope changes, then the current safe work permit must be closed and a new permit must be issued. In situations where new, previously unidentified hazards arise, the safe work permit will be suspended and reviewed.

A risk assessment shall be conducted to identify and assess hazards. Proper controls must be implemented to mitigate identified hazards.

1.51 Roles and Responsibilities

Permit Requestor: Individual requesting Safe Work Permit; identifies hazards and proposed controls. The Permit Requestor shall not issue Safe Work Permits to themselves.

Permit Issuer: Individual approving use of Safe Work Permit, ensures site preparations are complete and informs individuals affected by the work.

Permit Holder: Individual responsible for obtaining the Safe Work Permit and ensuring work is carried out in accordance with conditions of the Work Permit.

All employees working under the permit must sign the permit.



VRG Controls LLC
Personal Protective Equipment (PPE) Program

46. PERSONAL PROTECTIVE EQUIPMENT (PPE) PROGRAM

1.52 Purpose and Scope

The purpose of this program is to establish minimum requirements to protect employees through the use of personal protective equipment (PPE).

This program applies to all VRG Controls LLC employees.

1.53 Resources

Number	Title
29 CFR 1910 Subpart I	Personal Protective Equipment
29 CFR 1926 Subpart E	Personal Protective and Life Saving Equipment
Cal/OSHA T8CCR Subchapter 7	General Industry Safety Orders-Safe Practices and Personal Protection
CMS-FM-0047	Personal Protective Equipment (PPE) Hazard Assessment Form

1.54 Personal Protective Equipment (PPE) Program

Personal Protective Equipment (PPE) is equipment worn to minimize exposure to serious workplace injuries and illnesses. These injuries and illnesses may result from contact with chemical, radiological, physical, electrical, mechanical, or other workplace hazards.

PPE shall be provided at no cost to the employee with the exception of non-specialty safety-toe footwear and non-specialty prescription safety eyewear if permitted to be worn off the jobsite.

1.55 Training

Training shall be provided to each employee who is required to use PPE. Proper training includes at least:

- When PPE is necessary.
- What PPE is necessary.
- How to properly don, doff, adjust, and wear PPE.
- The limitations of PPE.
- The proper care, maintenance, useful life, and disposal of PPE.

Training shall be documented including the employee name, the dates of training, and the training content.



VRG Controls LLC Personal Protective Equipment (PPE) Program

Retraining is required when the workplace changes, making the earlier training obsolete, the type of PPE changes, or when the employee demonstrates lack of use, improper use, or insufficient skill or understanding. The certification must include the employee's name, the dates of training, and the certification subject.

1.56 PPE Maintenance

PPE shall be provided, used, and maintained in a sanitary and reliable condition wherever it is necessary by reason of hazards, of processes, or environment to protect body parts from inhalation, absorption, or physical contact. This applies to Company issued PPE or employee-owned PPE, if employee-owned PPE is allowed based on jurisdiction.

1.57 Hazard Assessment

A workplace hazard assessment shall be conducted to determine if hazards are present or are likely to be present, which necessitate the use of PPE. Verification shall be conducted to ensure the required workplace hazard assessment has been performed through a written certification that identifies the workplace evaluated, the person certifying that the evaluation has been performed, the date(s) of the hazard assessment, and identification of assessment documents.

If hazards are present, or likely to be present, the Company shall select and have each affected employee use the type of PPE necessary, communicate selection decisions, and select PPE that properly fits each affected employee.

Consideration shall be given to comfort and fit. PPE that fits poorly will not afford the necessary protection. Continued wearing of the PPE is more likely if it fits the wearer comfortably. PPE is generally available in a variety of sizes. Care should be taken to ensure that the right size is selected.

1.58 PPE Inspection

All PPE shall meet the appropriate safety standards and regulations.

PPE shall be inspected regularly to identify any defects, damage, or signs of wear that may compromise its effectiveness.

Any damaged, defective, or expired PPE shall be immediately removed from service and replaced with new or properly functioning equipment.



VRG Controls LLC Personal Protective Equipment (PPE) Program

1.58.1 Initial Inspection

Upon receipt of new PPE, it shall be inspected to ensure it is in good condition and free from defects.

Inspections should include checking for any visible damage, missing components, or signs of wear.

1.58.2 Pre-Use Inspection

Before using any PPE, employees shall inspect it for any visible damages or defects.

Inspections should include checking straps, buckles, lenses, shields, or any other components for proper functionality.

If any issues are identified during the pre-use inspection, the PPE should not be used, and the employee shall report it to their supervisor.

1.58.3 Routine Inspections

Regular inspections of PPE shall be conducted at predetermined intervals.

The frequency of routine inspections may vary depending on the type of PPE and the nature of the work environment.

Inspections should be documented, and records of inspections shall be maintained for future reference.

1.58.4 Post-Incident Inspections

Following any incident or accident where PPE was involved, the PPE shall be inspected to determine its integrity and effectiveness.

Damaged or compromised PPE shall be immediately removed from service and replaced.

1.59 Defective PPE

Defective or damaged PPE shall not be used. PPE that is in disrepair shall be discarded or removed from service until repaired.

1.60 Employee-Owned PPE

Employee-owned PPE is allowed, and the Company is responsible for the assurances of its adequacy, maintenance, and sanitation.



<p>VRG Controls LLC Personal Protective Equipment (PPE) Program</p>

1.61 Types of Protection

The correct level of PPE determined by the assessment, shall be worn at all times. PPE may include:

- Coveralls
- Flame Resistant Clothing (FRC)
- Hand Protection (gloves-chemical resistant, anti-impact, leather, rubber)
- Foot Protection (steel toe boots, shoes, toe covers)
- Head Protection
- Eye and Face Protection (safety glasses, shields)
- Hearing Protection
- Respiratory Protection
- Fall Prevention and Protection



VRG Controls LLC Personal Protective Equipment (PPE) Program

Appendix 20 Personal Protective Equipment (PPE) Hazard Assessment
Form

General Information			
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Employee Name:		Date:	
Location:			

Instructions	
1)	<i>Complete this form for each task to document evaluation of the workplace hazards that necessitate the use of PPE.</i>
2)	<i>Provide training and document on the training roster.</i>
<i>NOTE: These PPE controls should be used in conjunction with other controls (engineering, administrative, and work practices).</i>	

Hazard Assessment		
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Task	Hazard	PPE Required
		<input type="checkbox"/> Eye / Face:
		<input type="checkbox"/> Body:
		<input type="checkbox"/> Hand:
		<input type="checkbox"/> Foot:
		<input type="checkbox"/> Other:
		<input type="checkbox"/> Eye / Face:
		<input type="checkbox"/> Body:
		<input type="checkbox"/> Hand:



VRG Controls LLC Personal Protective Equipment (PPE) Program

		<input type="checkbox"/> Foot:
		<input type="checkbox"/> Other:
		<input type="checkbox"/> Eye / Face:
		<input type="checkbox"/> Body:
		<input type="checkbox"/> Hand:
		<input type="checkbox"/> Foot:
		<input type="checkbox"/> Other:
		<input type="checkbox"/> Eye / Face:
		<input type="checkbox"/> Body:
		<input type="checkbox"/> Hand:
		<input type="checkbox"/> Foot:
		<input type="checkbox"/> Other:

Certification

By signing this form, the individual certifies that a workplace hazard assessment has been performed in accordance with OSHA requirement.

Employee Signature:		Date:	
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VRG Controls LLC Risk Assessment Program

47. RISK ASSESSMENT PROGRAM

1.62 Purpose and Scope

The purpose of this program is to identify hazards and evaluate any associated risks to health, safety, and the environment arising from work activities, enabling informed decisions to be made to eliminate or minimize any risk of harm to those affected.

This program applies to all VRG Controls LLC employees.

1.63 Risk Assessment

Risk assessments do not have to be complicated; the level of detail contained in them should be relevant to the level of the risks involved with the activity. Risk assessments may lead to clarification of procedures, identifying efficiencies in existing processes, and identification of training and supervision required for the activity.

1.64 Hazard Identification

Risk assessments shall be conducted prior to the beginning of work to formally identify and assess hazards and correct them in a timely manner. This can be accomplished through Job Safety Analysis (JSA), daily hazard assessments, pre-job hazard assessments, or hazard workplace inspection.

A site safety inspection must be conducted in a timely manner and the form must be signed, dated with site name, as required.

A JSA shall be developed for all routine tasks. Formal workplace inspections for safety hazards of all operations, equipment, work areas, and facilities shall be performed on a regular basis. Risk assessments and JSAs shall be updated whenever changes occur to processes, equipment, work areas, and facilities.

Information shall be collected, organized, and reviewed with employees to determine what types of hazards may be present and which employees may be exposed or potentially exposed. Information available in the workplace may include:

- Equipment and machinery operating manuals.
- Safety Data Sheets (SDS).
- Inspection reports.
- Records of previous injuries and illnesses.
- Incident investigation reports.
- Results of JSAs.



VRG Controls LLC Risk Assessment Program

Employees shall be actively involved in the risk identification process. If subcontractors are performing work at the location, they should be included. Identified hazards and risks shall be reviewed with all affected employees.

Additional hazards from workers performing tasks with other trades or crafts must be evaluated.

1.64.1 Health Hazards

Identification of health hazards shall include chemical hazards, physical hazards, biological hazards, and ergonomic risk factors by conducting qualitative exposure assessments and reviewing employee medical records.

1.65 Training

All employees shall be trained on the hazard identification in the workplace, the risk assessment process, and how to report and control hazards using the hierarchy of controls.

1.66 Roles and Responsibilities

Those who lead and perform active roles in this process play a crucial role in identifying and mitigating potential hazards. Following are the key roles and responsibilities for individuals involved in the Hazard Identification process:

Hazard Identification Team Leader:

Overall Responsibility: The team leader is responsible for overseeing the entire Hazard Identification process and ensuring its effectiveness including:

- Planning
- Team Coordination
- Data Collection
- Risk Assessment
- Mitigation Planning
- Documentation
- Review and Continuous Improvement



VRG Controls LLC Risk Assessment Program

Hazard Identification Team Members:

- Data Gathering
- Hazard Analysis
- Reporting
- Recommendations
- Follow-up

Subject Matter Experts (SMEs):

- Technical Expertise
- Risk Assessment
- Mitigation Strategies

Safety Officers:

- Compliance
- Training
- Auditing

Management and Leadership:

- Support
- Decision-Making
- Review

Workers and Employees:

- Reporting
- Participation
- Compliance

1.67 Incident Investigations

Workplace incidents including injuries, illnesses, near misses, and stop work interventions shall be investigated to identify the root cause in order to prevent future occurrences.



VRG Controls LLC Risk Assessment Program

1.68 Hazard Classification and Rank

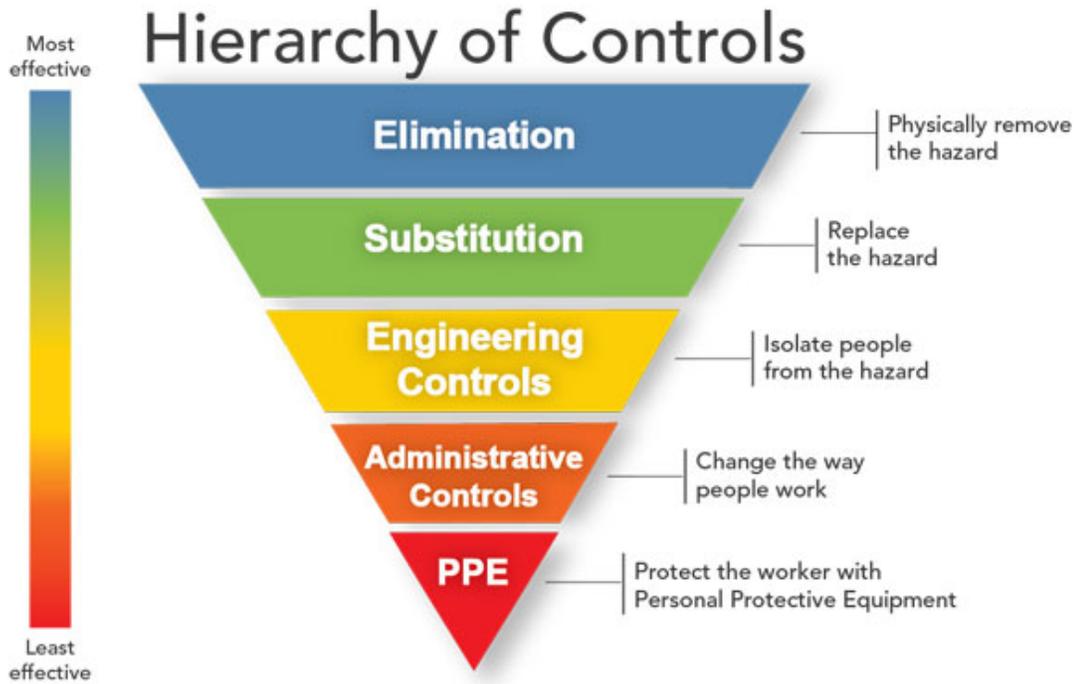
A formal system for classifying and ranking hazards according to risk shall be followed. Risk shall be determined by analyzing the probability of the hazard causing harm, the frequency the hazard is encountered, and the potential consequences of impact with the hazard. A risk matrix shall be followed to assist with the risk assessment.

Evaluation of each hazard by considering the severity of potential outcomes, the likelihood that an event or exposure will occur, and the number of employees who might be exposed shall be conducted to prioritize the hazards so that those presenting the greatest risk are addressed first.

1.69 Hierarchy of Controls

The hierarchy of controls shall be used to mitigate hazards before employees are exposed. When a hazard is identified, first attempt to eliminate the hazard. If elimination is not practicable, use engineering controls. If engineering controls are not practicable, implement administrative controls. If the hazard cannot be adequately controlled using engineering and/or administrative controls, employees shall use Personal Protective Equipment (PPE). A combination of engineering controls, administrative controls, and PPE is usually best.

**VRG Controls LLC
Risk Assessment Program**



1.70 Risk Evaluation and Estimation

1.71 Likelihood and Severity

Once hazards associated with activities have been identified, the likelihood of a hazardous event occurrence and the severity of that occurrence shall be estimated using the levels below:

Likelihood:
1. Improbable (unlikely to occur)
2. Remote (unlikely, though possible)
3. Occasional (likely to occur occasionally during standard operations)
4. Probable (not surprised, will occur in given time)
5. Frequent (likely to occur, to be expected)



VRG Controls LLC Risk Assessment Program

Severity:
1. Negligible (the hazard will not result in serious injury or illness, or has a remote possibility of damage)
2. Marginal (the hazard could cause illness, injury, or equipment or environmental damage, but its effects would not be serious)
3. Moderate (the hazard can result in serious injury or illness, property, or equipment or environmental damage)
4. Critical (the hazard can result in serious injury, illness, property, or equipment or environmental damage)
5. Catastrophic (the hazard is capable of causing death or illness)



**VRG Controls LLC
Risk Assessment Program**

1.72 Risk Matrix

Multiply the hazard’s probability and severity to calculate the level of risk. Use the following risk matrix to determine the level of risk. Reduce risk as described in the table below.

	Catastrophic: 5	Critical: 4	Moderate: 3	Marginal: 2	Negligible: 1
Frequent: 5	High – 25	High – 20	Serious – 15	Serious – 10	Medium – 5
Probable: 4	High – 20	Serious – 16	Serious – 12	Medium – 8	Medium – 4
Occasional: 3	Serious – 15	Serious – 12	Medium – 9	Medium – 6	Low – 3
Remote: 2	Serious – 10	Medium – 8	Medium – 6	Medium – 4	Low – 2
Improbable: 1	Medium – 5	Medium – 4	Low – 3	Low – 2	Low - 1

Low	The risk is tolerable, assuming all control measures are fully identified and effectively implemented.
Medium	The risk is tolerable assuming the risk levels have been reduced to as low as reasonably practicable (ALARP).
Serious	The risk is likely tolerable. Reduce to ALARP. May be acceptable where consequences are potentially high, but the likelihood has been reduced significantly.
High	The risk is intolerable. The risk must be reduced to medium or low before work begins.



<p style="text-align: center;">VRG Controls LLC Risk Assessment Program</p>

1.73 Continuous Improvement

A continuous improvement process for lessons learned to be incorporated into hazard controls such as plan-do-check-act (PDCA) or other similar continuous improvement process must be used.



VRG Controls LLC
Safe Return to Work Program

48. SAFE RETURN TO WORK PROGRAM

1.74 Purpose and Scope

The purpose of this program is to prioritize the health, well-being, and successful reintegration of employees by providing the necessary support, resources, and accommodations to ensure a safe and positive return-to-work experience.

This program applies to all VRG Controls LLC employees.

1.75 Resources

Number	Title
29 CFR 1904	Recording and Reporting Occupational Injuries and Illnesses
29 CFR 1926 Subpart C	General Safety and Health Provisions-Recording and Reporting of Injuries

1.76 Safe Return to Work Program

The Safe Return to Work program is intended to help employees return to work as soon as they are able, following an injury or illness.

1.77 Modified Work

Modified work shall be offered, wherever possible, to employees who are unable to return to their regular duties following a workplace injury or illness. The benefits of offering modified duty include, but are not limited to, reduced Workers Compensation costs, improved employee retention, enhanced employee morale, reduction in lost time days, and a strengthening of the Company's relationship with employees. Modified work shall be meaningful to the employee and the Company, and consistent with work restrictions outlined by the treatment provider.

A list of jobs available to be performed for employees on modified duty shall be maintained. All jobs shall be assessed to determine which jobs can be performed by employees working under specific restrictions. It is recommended that a Physical Demands Analysis (PDA) be prepared for each of these jobs to ensure employees are placed accordingly.

Employees shall be informed of this Safe Return to Work Program. Employees may be informed by communications via a safety meeting or toolbox talk, reviewing the program as part of the new employee orientation, as part of the employee handbook, and/or posting the policy in a conspicuous location, etc.



VRG Controls LLC Safe Return to Work Program

Local health care providers shall be advised that the Company provides modified work to injured employees, whenever practicable. This may be accomplished proactively by making arrangements with clinics who specialize in Occupational Health, and recommending injured employees seek treatment there. If/when this is not practicable, a standard letter shall be drafted that outlines modified work opportunities. Injured employees shall take this letter with them when they visit their health care provider.

Modified work being offered shall be consistent with the medical restrictions listed by the health care provider. Employees shall ensure that changes in the scope of the modified work adhere to the medical restrictions. Modified work is temporary and shall be managed with a goal to return to full time work as soon as deemed medically fit.

Supervisors shall be made aware of the restrictions to ensure the modified work meets the physician's orders.

1.78 Records

Medical records shall be kept strictly on a need-to-know basis. The records shall be kept in a locked file, either electronically or physically.

Written records of incident details shall be maintained to assist with incident recall and to demonstrate due diligence. Incident investigation records shall be maintained. Records shall be kept of communications with the injured employee regarding modified work. Workers Compensation and medical records, where applicable, shall also be maintained.



VRG Controls LLC Short Service Employee (SSE) Program
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49. SHORT SERVICE EMPLOYEE (SSE) PROGRAM

1.79 Purpose and Scope

The purpose of this program is to prevent work related injury and illness to new hires.

This program applies to all VRG Controls LLC employees deemed as Short Service Employees (SSE).

1.80 Short Service Employee Program

All new employees face a period of transition into new surroundings and work processes. It is during this period that new employees are exposed to the greatest risk of personal injury.

An SSE is a permanent employee, temporary employee, contractor, subcontractor, or supplier that has less than 6 months experience in their craft or assigned job.

Mentors must be knowledgeable and experienced and must not allow an SSE to work alone. A work crew of less than five employees shall not have more than one SSE.

Prior to starting work, the contractor shall notify the host facility (project coordinator, contractor contact, and/or on-site supervisor) if SSEs are present on work crews.

Contractors, subcontractors, and suppliers shall manage their SSEs in accordance with the requirements of the SSE program.

1.81 Training

Management shall ensure that each SSE is assigned a mentor and properly trained per federal, state, industry, Company, and client requirements before starting work. The mentor selection for each SSE shall be based upon the area and craft in which the employee will perform work.

Training may include, but not be limited to:

- General safety rules.
- General and job specific requirements for personal protective equipment (PPE).
- Injury reporting and follow-up procedures.
- Regulatory and job skill training specific to job tasks.
- Safety meetings and pre-job job safety analysis (JSA) processes.
- Site specific procedures and hazard information.



VRG Controls LLC Short Service Employee (SSE) Program
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1.82 Identification

SSEs shall be visibly identified using a different colored hardhat or other method of identification. The method used to identify SSEs should be communicated to the client.

1.83 Monitoring

SSEs shall be monitored for compliance with health, safety, and environmental (HSE) policies and procedures. Once the SSE has demonstrated competency and compliance with HSE policies and procedures, the hi-visibility identifier may be removed.

1.84 Mentor

A mentoring system shall be implemented to provide guidance to SSEs and assist with their development. A mentor may only be assigned to one crew that includes SSEs and shall remain on site with them.

The mentor shall provide on the job safety training and guidance and ensure that the SSE has demonstrated the necessary work ethic and safety knowledge necessary for their work.

The mentor shall communicate with management on the progress of the SSEs placed under their guidance.



VRG Controls LLC Stop Work Authority Program

50. STOP WORK AUTHORITY PROGRAM

1.85 Purpose and Scope

The purpose of this program is to provide employees with the responsibility and obligation to stop work when a perceived unsafe condition or behavior may result in damage to the environment, equipment, or people.

This program applies to all VRG Controls LLC employees.

1.86 Stop Work Authority (SWA) Program

No activity is so urgent or important that health, safety, or the environment (HSE) may be compromised. Stop work actions take precedence over all other priorities and procedures.

All employees have the authority and obligation to stop any task or operation where concerns or questions regarding the control of HSE risk exist.

Work shall not resume until all stop work concerns have been addressed and the designated individual with restart authority determines that the imminent risk does not exist or no longer exists.

Any form of retribution or intimidation directed at any individual or company for exercising their right to issue a stop work authority in good faith shall not be tolerated, even if deemed unnecessary.

1.87 Training

Employees shall receive Stop Work Authority training before initial assignment. The training shall be documented including the employee name, the dates of training, and subject.

1.88 Roles and Responsibilities

Senior management shall be responsible for creating a culture that promotes SWA and supports use of SWA without potential for retribution.

Supervisors and managers shall be responsible for honoring SWA requests and resolution before resuming operations.

The HSE department is responsible for providing training, support, and documentation and monitoring compliance of the SWA program.

Employees and contractors are responsible for initiating stop work and supporting stop work initiated by others.



VRG Controls LLC Stop Work Authority Program

1.89 SWA Steps

SWA is a several step process.

- 1) Stop - When an employee perceives conditions or behaviors that pose imminent danger, a stop work intervention shall be initiated immediately.
- 2) Notify - Affected personnel and supervision shall be notified of the stop work action.
- 3) Investigate - Affected personnel shall discuss the situation and come to an agreement on the stop work action.
- 4) Correct - Corrective actions shall be made according to the corrections agreed upon in the investigation.
- 5) Resume - All affected employees shall be notified of what corrective actions were implemented and work shall recommence by personnel with restart authority.
- 6) Follow Up - A root cause analysis to the stop work shall be completed to identify any potential opportunities for improvement.

1.90 Corrective Action

All stop work interventions shall be documented for lessons learned and corrective measures to be put into place.

1.91 Follow-Up

Stop work reports shall be reviewed by a supervisor or manager in order to measure participation, determine quality of interventions and follow-up, trend common issues, identify opportunities for improvement, and facilitate sharing of learnings.

It is the desired outcome of any stop work intervention that the identified safety concern(s) has been addressed to the satisfaction of all involved persons prior to the resumption of work. Most issues can be adequately resolved in a timely manner at the job site. Occasionally additional investigation and corrective actions may be required to identify and address root causes.



**VRG Controls LLC
Subcontractor Management Program**

51. SUBCONTRACTOR MANAGEMENT PROGRAM

1.92 Purpose and Scope

The purpose of this program is to ensure that subcontractors meet our safety standards, adhere to regulatory requirements, and contribute to a safe and productive work environment.

This program applies to all VRG Controls LLC employees using subcontractors.

1.93 Resources

Number	Title
CMS-FM-0049	Subcontractor Safety Pre-Qualification Form

1.94 Subcontractor Management

The subcontractor management plan shall contain key components to consider ensuring that existing issues, vulnerabilities, and risks are adequately addressed. All subcontractors utilized to perform work on behalf of the company must adhere to the appropriate health, safety, and environmental standards required by the governing jurisdiction.

All subcontractors, suppliers, and/or vendors must meet or exceed the Company’s own safety program requirements in addition to compliance with minimum jurisdictional regulatory requirements.

Subcontractors must be prequalified prior to use. The qualification process reviews the subcontractor’s safety metrics, policies and procedures, safety training, and safety programs.

Supervision and direction shall be provided by the Company to subcontractors.

1.95 Training

Written health, safety and environmental programs, and training documentation applicable to the type of work the subcontractor will perform shall be obtained and reviewed to assist with the hiring of safe subcontractors.



VRG Controls LLC Subcontractor Management Program
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1.96 Statistics

Past performance is a key indicator of future performance. Incident statistics shall be obtained and analyzed to ensure that only safe subcontractors are hired. A copy of the subcontractor's OSHA logs, Experience Modifier Report (EMR), TRIR, DART, etc. shall be obtained to compare their performance to others in the industry's minimum safety metric. Those who outperform the industry shall be selected whenever practicable.

1.97 Orientation

Subcontractors shall be provided a site orientation that addresses health, safety, security, and environmental concerns.

1.98 Drug and Alcohol Policy

The company is responsible for ensuring that subcontractors are aware of the hiring client's Drug and Alcohol policy. Subcontractors must adhere to the requirements of the Drug and Alcohol policy at all times while at the work site.

1.99 Assessments

Subcontractors shall be included in pre-job meetings, job safety analysis (JSA) development, hazard and risk assessments, tailgate meetings, and job site audits.

Post-job performance reviews for safety performance shall be conducted for subcontractors in post job evaluations. A combination of factors may be considered including, but not limited to, housekeeping, cost, safety, and quality of work.

1.100 Incidents

The company must ensure that subcontractors are aware of incident reporting requirements.

All subcontractors must report to the company all incidents and accidents in a prompt and timely manner.

If a subcontractor is involved in an incident, the company is responsible for reporting the incident to the hiring client. The company must ensure the incident is investigated, and must participate in the investigation.

Subcontractors involved in any incident or accident must perform an incident investigation, identify root causes and causal factors, develop corrective actions, and have a methodology for determining the effectiveness of the corrective actions.



**VRG Controls LLC
Subcontractor Management Program**

Appendix 21

Subcontractor Safety Pre-Qualification Form

General Information			
1. Subcontractor Information:			
Subcontractor Name:		Telephone No.:	
Address:		Email:	
		Website:	
NAICS Code:		Date:	
2. Officers			
President:			
Vice President:			
Treasurer:			
3. How many years has your organization been in business under the present name?			
4. Parent Company Information:			
Name and Address:			
Subsidiaries:			
5. Under current management since (date):			
6. Contact for Insurance Information:			
Name and Title:	Phone No.:	Email:	



VRG Controls LLC Subcontractor Management Program
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7. Insurance Carrier(s):		
Name	Type of Coverage	Phone No.

8. Workers' Compensation Account Information <i>(include a copy of your workers' comp insurance certificate)</i>	
Account No.:	Industry Code:

9. Contact for Requesting Bids:		
Name and Title:	Phone No.:	Email:

10. Contractor Evaluation Form Completed By:		
Name and Title:	Phone No.:	Email:

Health, Safety, and Environmental Performance
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Provide the following data for your company for the past 3 years.

Safety Performance Definitions and Guidance:

- a) **Hours Worked:** Employee hours worked last 3 years. Report actual scheduled total hours worked, and total overtime worked. If actual hours worked are not available for certain individuals, it may be estimated at 2000 hours per individual per year.
- b) **Recordable Incidents:** Cases that involve any work-related injury or illness, including death but excluding first-aid cases.
- c) **Lost Workday Cases:** Medical cases that involve fatalities, days away, or restricted work cases.
- d) **Motor Vehicle Incidents:** Any incident event involving a motor vehicle that is owned, leased, or rented that results in death, injury, or property damage unless the vehicle is properly parked.



**VRG Controls LLC
Subcontractor Management Program**

Health and Safety Incidents	2021	2022	2023
Total Hours Worked			
Total Recordable Incidents # Fatalities # Medical Aids # Days Away from Work Cases # Restricted Work Cases			
Total Recordable Incident Rate (TRIR) <u>Total # recordable incidents x 200,000</u> Total # hours worked			
Lost Workday Cases (LWC) # Fatalities # Days Away from Work Cases # Restricted Work Cases			
Lost Workday Incident Rate (LWDR) <u>Total # lost workday incidents x 200,000</u> Total # hour worked			
Motor Vehicle Incidents (MV) # Motor Vehicle Incidents # Miles Driven			
Motor Vehicle Incident Frequency Rate <u>Total # motor vehicle incidents x 1,000,000</u> Total # miles driven			
Environmental Incidents	2021	2022	2023
# Petroleum Spills to Water # Chemical Spills to Water # Petroleum Spills to Land # Chemical Spills to Land			
Enforcement Action	2021	2022	2023
# Health and Safety Citations # Environmental Citations Provide details:			



VRG Controls LLC Subcontractor Management Program
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OSHA Citations	2021	2022	2023
Number and type of violations. Penalties assessed by OSHA. Were the citations contested / vacated? What specific corrective actions were taken to prevent further penalties / injuries?			

Worker's Compensation (WC) Experience Modification Rate (EMR)	
Year	Rate
1.	
2.	
3.	
4. Provide a letter from your WC insurance carrier certifying the above EMRs.	
5. If your WC carrier has not issued your company an EMR because you have not accrued enough WC costs, provide a copy of your WC Loss Run (available from your carrier).	
6. If your current EMR is greater than 1.0, provide a written explanation of the safety methods that are being implemented by your company to reduce this rate.	

Health, Safety, and Environmental Management
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Highest ranking HSE professional:		
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Name and Title:	Phone No.:	Email:

Do you have a written HSE program?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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Does your HSE program include the following?		
1. HSE policy statement signed by management	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. Management involvement and commitment	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3. Hazard identification and risk control	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4. Rules and work procedures	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5. Training	Yes <input type="checkbox"/>	No <input type="checkbox"/>
6. Communications	Yes <input type="checkbox"/>	No <input type="checkbox"/>



VRG Controls LLC
Subcontractor Management Program

7.	Incident reporting and investigation	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Does the program include the below work practices and procedures?			
1.	Permit to Work including isolation of energy	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.	Confined space entry	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.	Injury and illness recording	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4.	Fall protection	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5.	Personal protective equipment	Yes <input type="checkbox"/>	No <input type="checkbox"/>
6.	Portable electrical / power tools	Yes <input type="checkbox"/>	No <input type="checkbox"/>
7.	Motor vehicle / driving safety	Yes <input type="checkbox"/>	No <input type="checkbox"/>
8.	Compressed gas cylinders	Yes <input type="checkbox"/>	No <input type="checkbox"/>
9.	Electrical equipment grounding assurance	Yes <input type="checkbox"/>	No <input type="checkbox"/>
10.	Powered industrial trucks (cranes, forklifts, etc.)	Yes <input type="checkbox"/>	No <input type="checkbox"/>
11.	Housekeeping	Yes <input type="checkbox"/>	No <input type="checkbox"/>
12.	Incident reporting and investigation	Yes <input type="checkbox"/>	No <input type="checkbox"/>
13.	Hazard reporting	Yes <input type="checkbox"/>	No <input type="checkbox"/>
14.	Emergency preparedness and evacuation plan	Yes <input type="checkbox"/>	No <input type="checkbox"/>
15.	Waste disposal and pollution prevention	Yes <input type="checkbox"/>	No <input type="checkbox"/>
16.	Regular workplace inspection / audit	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Do you have a drug and alcohol program?			
1.	Pre-employment testing	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2.	Reasonable cause testing	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3.	Post-rehabilitation / return to work testing	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Do you have a Job Safety Analysis (JSA) process?			
		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is there a root cause analysis process used for investigations, near misses, environmental spills?			
		Yes <input type="checkbox"/>	No <input type="checkbox"/>
Is there a Management of Change (MOC) process?			
		Yes <input type="checkbox"/>	No <input type="checkbox"/>



**VRG Controls LLC
Subcontractor Management Program**

Do you have programs for the following?			
1. Respiratory protection	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
2. Hazard communication	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
3. High hazard work such as highly hazardous chemicals, explosives, blasting agents	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Do you have a corrective action process for addressing employee safety and health performance deficiencies?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Do you conduct medical examinations?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Do you have personnel trained to perform first aid and CPR?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Is applicable PPE provided to employees?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Do you have a program to ensure that PPS is inspected and maintained?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Do you hold HSE meetings for?			Frequency
1. Field Supervisors	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
2. Employees	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
3. New Hires	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
4. Subcontractors	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
Inspections and audits:			Frequency
1. Do you conduct internal HSE inspections?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
2. Do you conduct internal HSE program audits?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	
3. Are corrections or deficiencies to internal HSE program or equipment communicated and documented until closure?	Yes <input type="checkbox"/>	No <input type="checkbox"/>	



VRG Controls LLC
Subcontractor Management Program

Equipment and Materials:		
1. Do you own or lease equipment and materials?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. Do you have a system for establishing applicable health, safety, and environmental specifications for acquisition of materials and equipment?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3. Do you conduct inspections on operating equipment in compliance with regulatory requirements?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4. Do you maintain operating equipment in compliance with regulatory requirements?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5. Do you maintain the applicable inspection and maintenance certification records for operating equipment?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
6. Do you conduct corrections or deficiencies from equipment inspections and maintenance?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Subcontractor Management:		
1. Do you subcontract any work?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. Do you have a written contractor safety management process?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3. Do you use HSE performance criteria in selection of subcontractors?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
4. Do you evaluate the ability of subcontractors to comply with applicable HSE requirements as part of the selection process?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
5. Do your subcontractors have a written HSE program?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
6. Do you include your subcontractors in the following:		
• HSE orientation	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• HSE meetings	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• HSE equipment inspections	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• HSE program audits	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• Are corrections or deficiencies documented	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Employee and Job Training:		
1. Have employees been trained in appropriate job skills?	Yes <input type="checkbox"/>	No <input type="checkbox"/>



VRG Controls LLC Subcontractor Management Program
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2. Are employees' job skills certified where required by regulatory or industry standards?
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	Yes <input type="checkbox"/>
--	------------------------------

	No <input type="checkbox"/>
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VRG Controls LLC
Subcontractor Management Program

Health, Safety, and Environmental Orientation:	New Hires	Supervisors
1. Do you have an HSE orientation program for new hires and newly hired or promoted supervisors?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. Does the program provide instruction on the following:		
• New employee orientation	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• Safe work practices	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• Safety supervision	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• Toolbox meetings	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• Emergency procedures	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• First aid procedures	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• Fire protection and prevention	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• Safety Intervention	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• Hazard communication	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Health, Safety, and Environmental Training:		
1. Do you know the regulatory HSE training requirements for your employees?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. Have your employees received the required HSE training and re-training?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
3. Do you have a specific HSE training program for supervisors?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Training Records:		
1. Do you have HSE training records for your employees?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
2. Do the training records include the following:		
• Employee identification	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• Date of training	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• Name of trainer	Yes <input type="checkbox"/>	No <input type="checkbox"/>
• Method used to verify understanding	Yes <input type="checkbox"/>	No <input type="checkbox"/>
Signatures		
Completed By:		Title:
Signature:		Date:



VRG Controls LLC
Welding, Cutting, Hot Work Program

52. WELDING, CUTTING, HOT WORK PROGRAM

1.101 Purpose and Scope

The purpose of this program is to establish hot work requirements to ensure all hazards are evaluated and the appropriate safety measures and controls are administered prior to and during any process that involved welding and cutting or any other hot work.

This program applies to all VRG Controls LLC employees involved with hot work.

1.102 Resources

Number	Title
29 CFR 1910 Subpart Q	Welding, Cutting, and Brazing
Cal/OSHA T8CCR Subchapter 7	General Industry Safety Orders – Gas Systems for Welding and Cutting
NFPA 51B	Standard for Fire Prevention During Welding, Cutting, and Other Hot Work
CMS-FM-0050	Hot Work Permit

1.103 Definitions

Acronym/Term	Definition
Welder and Welding Operator	Any operator of electric or gas welding and cutting equipment.
Approved	Listed or approved by a nationally recognized testing laboratory.
Confined Space	A relatively small or restricted space such as a tank, boiler, pressure vessel, or small compartment of a ship.

1.104 Welding, Cutting, and Hot Work Program

Welding, cutting, and hot work such as brazing or grinding present a significant opportunity for fire and injury. All precautions of this program shall be applied prior to commencing any hot work.



<p>VRG Controls LLC Welding, Cutting, Hot Work Program</p>
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1.105 Responsibilities

Management shall recognize its responsibility for the safe usage of cutting and welding equipment on the property and:

- Based on fire potentials of plant facilities, establish areas for cutting and welding, and establish procedures for cutting and welding, in other areas.
- Designate an individual responsible for authorizing cutting and welding operations in areas not specifically designed for such processes.
- Insist that cutters or welders and their supervisors are suitably trained in the safe operation of their equipment and the safe use of the process.
- Advise all contractors about flammable materials or hazardous conditions of which they may not be aware.

The **Supervisor**:

- Shall be responsible for the safe handling of the cutting or welding equipment and the safe use of the cutting or welding process.
- Shall determine the combustible materials and hazardous areas present or likely to be present in the work location.
- Shall protect combustibles from ignition by the following:
 - Have the work moved to a location free from dangerous combustibles.
 - If the work cannot be moved, have the combustibles moved to a safe distance from the work or have the combustibles properly shielded against ignition.
 - See that cutting and welding are so scheduled that operations that might expose combustibles to ignition are not started during cutting or welding.
- Shall secure authorization for the cutting or welding operations from the designated management representative.
- Shall determine that the cutter or welder secures approval that conditions are safe before going ahead.
- Shall determine that fire protection and extinguishing equipment are properly located at the site.
- Where fire watches are required, see that they are available at the site.



VRG Controls LLC Welding, Cutting, Hot Work Program
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1.106 Training

Cutters, welders, and their supervisors shall be suitably trained and qualified in the safe operation of hot work equipment and safe use of the process.

Assigned fire watchers shall be trained in the use of fire extinguishing equipment and familiar with the facilities for sounding an alarm in the event of a fire.

Affected employees assigned to maintain or operate welding or cutting equipment must be familiar with 29 CFR 1910.254 and 29 CFR 1910.252(a-c).

Affected employees whose duties require arc welding or cutting must be trained in a manner such that those employees are qualified to operate such equipment.

1.107 Special Precautions

Employees must cease hot work operations if welding and cutting cannot be performed in a safe manner.

The Qualified Hot Work Supervisor shall verify that all fire suppression systems present in the area are fully operational. If fire suppression systems cannot be operational, additional protective measures shall be put in place.

If the object to be welded or cut cannot readily be moved, all movable fire hazards in the vicinity shall be taken to a safe place.

If the object to be welded or cut cannot be moved and if all the fire hazards cannot be removed, then guards shall be used to confine the heat, sparks, and slag, and to protect the immovable fire hazards.

Where practicable, all combustibles shall be relocated at least 35 feet from the work site. Where relocation is impracticable, combustibles shall be protected with flameproof covers or otherwise shielded with metal or asbestos guards or curtains.

If the requirements for fire hazards and guarding cannot be followed, then welding and cutting shall not be performed.

Wherever there are floor openings or cracks in the flooring that cannot be closed, precautions shall be taken so that no readily combustible materials on the floor below will be exposed to sparks which might drop through the floor. The same precautions shall be observed regarding cracks or holes in walls, open doorways, and open or broken windows.

The frame or case of welding machines, except engine-driven machines, shall be grounded.



<p>VRG Controls LLC Welding, Cutting, Hot Work Program</p>
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Before starting operations all connections to welding machines shall be checked to make certain they are properly made.

Ducts and conveyor systems that might carry sparks to distant combustibles shall be suitably protected or shut down.

Where cutting or welding is done near walls, partitions, ceiling, or roof of combustible construction, fire-resistant shields or guards shall be provided to prevent ignition.

If welding is to be done on a metal wall, partition, ceiling or roof, precautions shall be taken to prevent ignition of combustibles on the other side, due to conduction or radiation, preferably by relocating combustibles. Where combustibles are not relocated, a fire watch on the opposite side from the work shall be provided.

Welding shall not be attempted on a metal partition, wall, ceiling, or roof having a combustible covering nor on walls or partitions of combustible sandwich-type panel construction.

Cutting or welding on pipes or other metal in contact with combustible walls, partitions, ceilings, or roofs shall not be undertaken if the work is close enough to cause ignition by conduction.

1.108 Fire Watch

Fire watchers shall be required whenever welding or cutting is performed in the following situations:

- Locations where other than a minor fire might develop.
- Appreciable combustible material is closer than 35 feet to the point of operation.
- Appreciable combustibles are more than 35 feet away but are easily ignited by sparks.
- Wall or floor openings within a 35-foot radius expose combustible material in adjacent areas including concealed spaces in walls or floors.
- Combustible materials are adjacent to the opposite side of metal partitions, walls, ceilings, or roofs and are likely to be ignited by conduction or radiation.

Fire watchers shall have fire extinguishers readily available and shall be trained in its use. They shall be familiar with facilities for sounding an alarm in the event of a fire. They shall watch for fires in all exposed areas, try to extinguish them only when obviously within the capacity of the equipment available, or otherwise sound the alarm. A fire watch shall be maintained at least half an hour after the welding or cutting operation is completed. Depending on location and local regulations, a fire watch shall be maintained at a minimum of 60 minutes after the welding or cutting operation is complete. A minimum of 2 hours of surveillance must be maintained after completing hot work.



VRG Controls LLC Welding, Cutting, Hot Work Program
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1.109 Hot Work Permit

Before cutting or welding is permitted, the area shall be inspected by the individual responsible for authorizing cutting and welding operations. Precautions shall be designated to be followed in granting authorization to proceed, preferably in the form of a written permit.

1.110 Prohibited Areas

Cutting or welding shall not be permitted in areas not authorized by management, in sprinkled buildings while such protection is impaired, in the presence of explosive atmospheres, areas near the storage of large quantities of exposed, readily ignitable materials.

1.111 Personal Protective Equipment (PPE)

Employees exposed to the hazards created by welding, cutting, or brazing operations shall be protected by personal protective equipment (PPE).

Goggles or other suitable eye protection shall be used during all gas welding or oxygen cutting operations. Spectacles without side shields, with suitable filter lenses are permitted for use during gas welding operations on light work, for torch brazing, or for inspection.

Helmets or hand shields shall be used during all arc welding or arc cutting operations.

1.112 Ventilation

Local exhaust or general ventilating systems shall be provided and arranged to keep the amount of toxic fumes, gases, or dusts below the maximum allowable concentration.

1.113 Confined Spaces

When hot work is to be performed in confined spaces, ventilation, securing cylinders, lifelines, electrode removal, gas cylinders shutoff, and warning signs shall be addressed.

When welding or cutting is being performed in any confined spaces the gas cylinders and welding machines shall be left on the outside. Before operations are started, heavy portable equipment mounted on wheels shall be securely blocked to prevent accidental movement.

Where a welder must enter a confined space through a manhole or other small opening, means shall be provided for quick removal in case of emergency. When safety belts and lifelines are used for this purpose, they shall be so attached to the welder's body that the body cannot be jammed in a small exit opening. An attendant with a preplanned rescue procedure shall be stationed outside to observe the welder at all times and be capable of putting rescue operations into effect.



VRG Controls LLC Welding, Cutting, Hot Work Program
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When arc welding is to be suspended for any substantial period of time, such as during lunch or overnight, all electrodes shall be removed from the holders and the holders carefully located so that accidental contact cannot occur, and the machine shall be disconnected from the power source.

In order to eliminate the possibility of gas escaping through leaks of improperly closed valves, when gas welding or cutting, the torch valves shall be closed and the fuel-gas and oxygen supply to the torch positively shut off at some point outside the confined area whenever the torch is not to be used for a substantial period of time, such as during lunch hour or overnight. Where practicable, the torch and hose shall also be removed from the confined space.

After welding operations are completed, the welder shall mark the hot metal or provide some other means of warning other employees.

1.114 Equipment

The operator shall report any equipment defect or safety hazard to the supervisor and the use of the equipment shall be discontinued until safety has been assured. Repairs shall be made only by qualified personnel.

First aid equipment shall be available at all times.

Only approved apparatus such as torches, regulators or pressure-reducing valves, acetylene generators, and manifolds shall be used.

Employees in charge of the oxygen or fuel-gas supply equipment, including generators, and oxygen or fuel-gas distribution piping systems shall be instructed and judged competent by the Company for this important work before being left in charge.

1.115 Identification

Compressed gas cylinders shall be legibly marked, for the purpose of identifying the gas content, with either the chemical or the trade name of the gas. Such marking shall be by means of stenciling, stamping, or labeling, and shall not be readily removable. Whenever practical, the marking shall be located on the shoulder of the cylinder.



<p>VRG Controls LLC Welding, Cutting, Hot Work Program</p>
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1.116 Transportation and Storage

Cylinders shall be kept away from radiators and other sources of heat. Inside of buildings, cylinders shall be stored in a well-protected, well-ventilated, dry location, at least 20 feet from highly combustible materials and any flammable or petroleum products.

Cylinders shall be stored in assigned places away from elevators, stairs, or gangways. Assigned storage spaces shall be located where cylinders will not be knocked over or damaged by passing or falling objects, or subject to tampering by unauthorized persons.

Cylinders shall not be kept in unventilated enclosures such as lockers and cupboards.

Empty cylinders shall have their valves closed. Valve protection caps, where cylinder is designed to accept a cap, shall always be in place except when cylinders are in use or connected for use.



**VRG Controls LLC
Welding, Cutting, Hot Work Program**

Appendix 22

Hot Work Permit

General Information			
Hot Work Operator:		Date:	
Fire Watch Name:		Job No.:	
Location of Work:			
Description of Work:			
Date Work to Begin:		Date Work to End:	
Time Work to Begin:		Time Work to End:	
Emergency Notification			
Contact		Phone No.	



VRG Controls LLC Welding, Cutting, Hot Work Program
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Building Information			
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Building Name:		Building Number:	
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Floor:		Specific Location:	
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Do building fire alarm system devices have to be deactivated? Yes No

Device number(s) requiring deactivation:	
--	--

Date(s) device(s) will be deactivated:	
--	--

Special Precautions			
---------------------	--	--	--

1.	Proper training verified by hot work operator.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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2.	Can hot work be moved outside or to a safe location?	Yes <input type="checkbox"/>	No <input type="checkbox"/>
----	--	------------------------------	-----------------------------

3.	Hot work area swept and clear of combustible materials within a 35-foot radius.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
----	---	------------------------------	-----------------------------

4.	Combustible construction has been shielded.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
----	---	------------------------------	-----------------------------

5.	All tools, equipment, and PPE inspected and in good working condition.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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6.	Adequate ventilation.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
----	-----------------------	------------------------------	-----------------------------

7.	Fire extinguishers are in service / operable.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
----	---	------------------------------	-----------------------------

8.	Fire watch has fire extinguisher and has completed fire extinguisher training.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
----	--	------------------------------	-----------------------------

9.	Management has evaluated the facility.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
----	--	------------------------------	-----------------------------

10.	Operator understands that work must stop if unsafe.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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11.	Confined space entry permit required.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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VRG Controls LLC Welding, Cutting, Hot Work Program
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12.	Lockout / tagout required.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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13.	Hot work area will be monitored for 30 minutes after work.	Yes <input type="checkbox"/>	No <input type="checkbox"/>
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Additional Precautions:

Signatures

I verify that the above location has been examined and the required precautions have been taken.

Hot Work Operator Name:		Date:	
-------------------------	--	-------	--

Hot Work Operator Signature:	
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I verify that the above location has been examined and the required precautions have been taken.

Post-Work Fire Watch Finish Time:	
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Fire Watch Name:		Date:	
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Fire Watch Signature:	
-----------------------	--

I verify that the above location has been examined, the required precautions have been taken, and permission is authorized for this work.

Permit Authorizer Name:		Date:	
-------------------------	--	-------	--

Permit Authorizer Signature:	
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**VRG Controls LLC
Asbestos Awareness Program**

53. ASBESTOS AWARENESS PROGRAM

1.117 Purpose and Scope

The purpose of this program is to provide information about asbestos, the potential health effects associated with exposure, and safety procedures that should be followed to reduce exposure and protect the health of employees.

This program applies to all VRG Controls LLC employees.

1.118 Resources

Number	Title
OSHA 29 CFR 1910 Subpart Z	Toxic and Hazardous Substances - Asbestos
NIH Pub. No. 89-1647	OSHA Asbestos Training
CMS-FM-0008	Asbestos Exposure Control Checklist

1.119 Definitions

Acronym/Term	Definition
Asbestos	Asbestos is a generic term describing a family of naturally occurring fibrous silicate minerals. As a group, the minerals are noncombustible, do not conduct heat or electricity, and are resistant to many chemicals. Although there are several other varieties that have been used commercially, the most common asbestos mineral types likely to be encountered in buildings are chrysotile (white asbestos), amosite (brown asbestos), and crocidolite (blue asbestos). Among these, white asbestos is by far the most common asbestos mineral present in buildings.
Friable Asbestos	Friable asbestos material means finely divided asbestos or asbestos-containing material or any asbestos-containing material that can be crumbled, pulverized, or powdered by hand pressure. Individual fibers in friable asbestos-containing material can potentially become airborne and can then present a health hazard. Three types of friable material commonly used in buildings are: sprayed fibrous fireproofing; decorative or acoustic texture coatings; and thermal insulation.
Non-friable Asbestos	Non-friable asbestos includes a range of products in which asbestos fiber is effectively bound in a solid matrix from which asbestos fiber cannot normally escape. Non-friable asbestos includes a variety of products including asbestos cement tiles and boards and asbestos reinforced vinyl floor tiles. Cutting, bracking, sanding, and drilling or similar activities can release asbestos fibers from even non-friable asbestos materials.



VRG Controls LLC Asbestos Awareness Program
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1.120 Asbestos Awareness Program

Asbestos is a common, naturally occurring group of fibrous minerals. Asbestos fibers have been used in a variety of building materials. Asbestos materials are used in the manufacture of heat-resistant clothing, automotive brake and clutch linings, and a variety of building materials including insulation, soundproofing, floor tiles, roofing felts, ceiling tiles, asbestos-cement pipe and sheet, and fire-resistant drywall. Asbestos is also present in pipe and boiler insulation materials, pipeline wrap and in sprayed-on materials located on beams, in crawlspaces, and between walls.

1.121 Hazards

Friable asbestos (that is, material that contains more than 0.1% asbestos by weight and can be crumbled by hand) is a potential hazard because it can release fibers into the air if damaged. Long-term exposure to airborne asbestos is necessary for chronic lung disease. Asbestos fibers are significantly more hazardous than dust or other materials even of the same composition because the shape of the fibers allows them to be inhaled but not eliminated by the respiratory system as with other particles.

Significant and long-term exposure to asbestos from activities that directly disturb asbestos-containing materials (such as asbestos mining) can lead to a variety of respiratory diseases, including asbestosis and mesothelioma (cancer of the lung lining), and cancer of the stomach and colon. Asbestosis is a non-malignant, irreversible disease resulting in fibrosis of the lung. Asbestos-related cancers tend also to result from substantial long-term exposure; however, mesothelioma may result from much smaller exposures to asbestos.

1.122 Hazard Control

- **Engineering Controls** - Engineering controls include the use of enclosures such as monitoring equipment, glove bags, tenting, negative pressure work areas, HEPA filters, controlled vacuums, water misters, and other equipment to ensure containment and cleanup of asbestos work areas.
- **Administrative Controls** - All qualified employees shall be issued proper personal protective equipment (PPE), such as respirators, disposable coveralls, gloves, etc. Written procedures and management authorizations are required for all work involving asbestos containing material.
- **Training Controls** – Training shall be provided to all employees with the potential to come into contact with asbestos before work begins and yearly thereafter. Training shall include identification of the locations for potential exposure, the health hazards as previously listed,



<p>VRG Controls LLC Asbestos Awareness Program</p>
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and that employees must not disturb asbestos containing materials. Examples of where asbestos maybe found include manufacturing of heat resistant clothing, automotive brake and clutch linings, certain building materials such as insulation, sound proofing, floor tiles, roofing felts, ceiling tiles, asbestos-cement pipe and sheet, fire resistant drywall, pipe and boiler insulating materials, pipeline wrap, and in sprayed on materials located on beams, in crawlspaces, and between walls. Training must include:

- Prohibiting unauthorized employees from disturbing asbestos containing materials
- Signs and labels will be used to identify areas where asbestos is present
- Appropriate work practices will be used to ensure ACM and presumed ACM are not inadvertently disturbed
- Signs and labels shall identify the material which is present, where it is located, and appropriate work practices which will ensure that asbestos containing material (ACM) and/or presumed asbestos containing material (PACM) will not be disturbed.



**VRG Controls LLC
Asbestos Awareness Program**

Appendix 23

Asbestos Exposure Control Checklist

General Information				
Competent Person:			Date:	
Location:				
Description of Job:				
Competent Person				
		Yes	No	N/A
1.	On site			
2.	Adequately trained			
3.	Authority to correct hazards			
4.	Conducts regularly scheduled inspections			
5.	Develops asbestos exposure control plan			
6.	Ensures exposure assessment and monitoring program			
7.	Ensures PPE is used and employees are trained			
8.	Hygiene facilities and engineering controls in use			
Method(s) of Asbestos Determination				
		Yes	No	N/A
1.	Owner/client documentation			
2.	Project specifications			
3.	Prior maintenance records			
4.	Other documentation			
5.	Bulk samples			
6.	Other sample methods			
Employee Asbestos Exposure Assessment & Monitoring				
		Yes	No	N/A
1.	Competent person to conduct exposure assessment			
2.	Initial exposure assessment			
3.	Negative exposure assessment			
4.	Daily / periodic monitoring			



**VRG Controls LLC
Asbestos Awareness Program**

Asbestos Exposure Control Plan Content				
		Yes	No	N/A
1.	Tasks / activities disturbing asbestos			
2.	Engineering controls			
3.	Work practices			
4.	Personal protective equipment			
5.	Respiratory protection			
6.	Medical surveillance			
7.	Exposure monitoring data			
8.	Multi-contractor communication			
9.	Employee training			
Regulated Work Area				
		Yes	No	N/A
1.	Established / supervised by competent person			
2.	Signs posted			
3.	Access controlled			
4.	Separated from other parts of facility			
5.	Respiratory protection used			
6.	No eating, drinking, smoking, etc.			
7.	Work supervised by competent person			
Negative Pressure Enclosure				
		Yes	No	N/A
1.	Negative pressure enclosure practical			
2.	Integrity of Enclosure			
3.	Established access control			
4.	Employee monitoring			
5.	PPE in use			
6.	Entry / exit procedures training			
7.	Engineering controls			
8.	Containment leak check each shift			
9.	Electric circuits deactivated unless GFCI			
10.	Work practices			



**VRG Controls LLC
Asbestos Awareness Program**

Engineering Controls				
		Yes	No	N/A
1.	Local exhaust system with HEPA filters			
2.	General ventilation with HEPA filters			
3.	Vacuum cleaners with HEPA filters			
4.	Enclosure or isolation			
5.	Wet methods used for cleanup			
6.	Leak-tight labeled containers used for disposal			
Work Practices				
		Yes	No	N/A
1.	Regulated work area established			
2.	Work plan developed			
3.	Housekeeping plan			
4.	Proper tools used for work			
Personal Protective Equipment (General)				
		Yes	No	N/A
1.	Head protection / covering			
2.	Eye protection			
3.	Hand protection (gloves)			
4.	Foot protection / covering			
5.	Protective clothing (coveralls)			
6.	Disposal / decontamination procedures			
Respiratory Protection				
		Yes	No	N/A
1.	Written program established			
2.	Designated program administrator (competent person)			
3.	Employee medical qualification			
4.	Employee fit test (negative pressure respirator)			
5.	NIOSH / MSHA approved respirators			
6.	Cleaning, maintenance, and storage procedures			
7.	Grade D air supply for supplied air respirators			
8.	Program audits			



**VRG Controls LLC
Asbestos Awareness Program**

Personal Hygiene				
		Yes	No	N/A
1.	Hand washing area (regardless of exposure level)			
2.	Shower and change room (separate for male and female)			
3.	Hot and cold water (water filter 5 micrometers)			
4.	Soap and towels			
5.	Lunchroom / area wet wipe / mop daily			
6.	No food, smoking devices, chew, or cosmetics in work area			
7.	Non-work area protected from contamination			
8.	Personnel decontamination techniques established			
Medical Surveillance				
		Yes	No	N/A
1.	Medical advisor supervising program (provided with required information)			
2.	Medical surveillance program			
3.	Employee(s) provided monitoring results within 30 days			
Employee Information and Training				
		Yes	No	N/A
1.	HazCom training provided all employees			
2.	Asbestos training – all employees in accordance with EPA model accreditation plan			
Signs				
		Yes	No	N/A
1.	Containers of contaminated clothing labeled			
2.	Work areas posted			
Recordkeeping				
		Yes	No	N/A
1.	Asbestos exposure control plan			
2.	Exposure assessment			
3.	Medical surveillance records			
4.	Employee training records			



VRG Controls LLC
Cal/OSHA Fall Protection Program

54. CAL/OSHA FALL PROTECTION PROGRAM

1.123 Purpose and Scope

The purpose of this program is to provide specific requirements and safety principles to ensure that work at heights is conducted safely and effectively.

This program applies to all VRG Controls LLC employees exposed to working at heights.

1.124 Resources

Number	Title
29 CFR 1926 Subpart M	Fall Protection
29 CFR 1910 Subpart D	Walking-Working Surfaces
29 CFR 1917 Subpart F	Terminal Facilities - Guarding of Edges
29 CFR 1915 Subpart E	Scaffolds, Ladders, and Other Working Surfaces - Guarding of Deck Openings and Edges
29 CFR 1926 Subpart R	Steel Erection-Fall Protection
Cal/OSHA T8 CCR Subchapter 7	General Industry Safety Orders - Injury and Illness Prevention Program
Cal/OSHA T8 CCR Subchapter 4	Construction Safety Orders - Fall Protection

1.125 Definitions

Acronym/Term	Definition
Competent Employee / Person	A person who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

1.126 Fall Protection Program

The standards for regulating fall protection systems and procedures are intended to prevent employees from falling off, onto, or through working levels and to protect employees from falling objects. Fall protection requirements under the regulations require considerable planning and preparation.



VRG Controls LLC Cal/OSHA Fall Protection Program
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1.127 Requirements

ANSI approved personal fall arrest, personal fall restraint, or positioning systems must be worn by employees whose work exposed them to falling in excess of 7.5 feet from the perimeter of a structure, unprotected sides or edges, leading edges, through shaftways and openings, sloped roof surfaces steeper than 7:12, or other sloped surfaced steeper than 40 degrees not otherwise adequately protected.

Fall protection must be rigged in such a manner that an employee can neither free fall more than 6 feet, nor contact any lower level.

Anchorage used for the attachment of personal fall arrest system equipment must be independent of any anchorage being used to support or suspend platforms and capable of supporting at least 5,000 pounds per employee attached.

Positioning systems and devices must be rigged such that an employee cannot free fall more than 2 feet. If the use of positioning systems is not allowed, then their use must be explicitly forbidden.

All personal fall arrest, personal fall restraint, and positioning device systems purchased or placed in service after February 1, 1997, must be labeled as meeting the requirements containing in ANSI A10.14-1991 American National Standard for Construction and Demolition Use or ANSI Z359.1-1992 American National Standard Safety Requirements for Personal Fall Arrest Systems, Subsystems, and Components.

1.128 Rescue

The company will provide for prompt rescue of employees in the event of a fall or shall ensure that employees are able to rescue themselves.

1.129 Fall Protection Plan

A fall protection plan must be prepared by a qualified person and developed specifically for the site where work is being performed and the plan must be maintained up to date. The plan must include the identity of the qualified person.

1.130 Barricades and Barriers

When Controlled Access Zones are used to control access to areas where leading edge and other operations are taking place, the controlled access zone must be defined by a control line or other means that restrict access such as barricades or barriers.



VRG Controls LLC Cal/OSHA Fall Protection Program
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1.131 Guardrails

When guardrails are utilized or required, the standard guardrail must consist of a top rail, mid rail or equivalent protection, and posts, and shall have a vertical height within the range of 42 inches to 45 inches from the upper surface of the top rail to the floor, platform, runway, or ramp level.

1.132 Training

When employees are first employed, they shall be given instructions regarding the hazards and safety precautions applicable to the type of work in question and directed to read the Code of Safe Practices.



VRG Controls LLC
Cal/OSHA Hazard Communication Program

55. CAL/OSHA HAZARD COMMUNICATION PROGRAM

1.133 Purpose and Scope

The purpose of this program is to provide information concerning the hazards associated with the work activities, including but not limited to the health, safety, environmental, and security hazards where employees may be exposed to hazardous substances under normal working conditions or during emergency situations.

This program applies to all VRG Controls LLC employees exposed to hazardous situations.

1.134 Resources

Number	Title
29 CFR 1910 Subpart Z	Toxic and Hazardous Substances – Hazard Communication
Cal/OSHA T8 CCR Subchapter 7	General Industry Safety Orders – Control of Hazardous Substances
CMS-FM-0028	Inventory of Hazardous Chemicals Form

1.135 Hazard Communication Program

Potential hazards include materials that cause fire or explosion or result in injury by inhalation, skin or eye contact, or ingestion. One of the benefits of this program is that employees will know the hazards of the chemicals with which they are working.

1.136 General

A written hazard communication program shall be developed, implemented, and maintained at each workplace. The program shall describe how the requirements for labels and other forms of warning, safety data sheets, and employee information and training will be met.

Examples of qualities which make a chemical "hazardous" include but are not limited to:

- Flammable, combustible, and/or explosive
- Corrosive (acids/caustics)
- Irritating/damaging to the eyes and/or skin on contact
- Poses health hazard through inhalation, ingestion, or body contact
- Any known or suspected carcinogen



VRG Controls LLC Cal/OSHA Hazard Communication Program

1.137 Inventory of Hazardous Chemicals

An inventory or list of chemicals known to be present must be maintained using a product identifier that is referenced on the appropriate safety data sheet (SDS). The list may be compiled for the workplace as a whole or for individual work areas.

This inventory shall include:

- The full chemical name or identity that is referenced on the appropriate SDS
- CAS number
- Approximate amount of the chemical with suitable units of measurement
- Physical state
- Responsible party
- Location
- Expiration date if applicable

1.138 Safety Data Sheets

The company is required to have a safety data sheet (SDS) for each hazardous chemical used or stored.

1.139 Non-routine Tasks

Before employees perform non-routine or special tasks that may expose them to hazardous chemicals, they shall be trained on the hazards associated with those chemicals. This training shall be documented and maintained, including how and by whom the employees were trained.

1.140 Labeling

Each container of hazardous chemicals found in the workspace must be labeled, tagged, or marked with:

- The product identifier
- The signal word
- Hazard statement(s)
- Pictograms



VRG Controls LLC Cal/OSHA Hazard Communication Program

- Precautionary statement(s); or other product identifier and words, pictures, symbols, or a combination thereof, which provide, at a minimum, general information regarding the hazards of the chemicals, and when combined with the other information made immediately available to employees under the company's hazard communication program, will provide the affected employees with the specific information concerning the physical and health hazards of the hazardous chemical.

The labels must be written in English, be legible, and prominently displayed on the container, or readily available in the work area throughout the shift. Additional written language may be added to the chemical labels in conjunction with the English information to support non-English speaking workers.

1.141 Training

Employees shall be trained on the dangers of the hazardous chemicals with which they work. This training shall be given when the employee starts work and when a new chemical is used in the workplace. This training shall cover types of hazards (e.g., flammability or carcinogenicity) or specific chemicals. Chemical-specific information shall always be available through labels and safety data sheets (SDS).

On job sites with multiple employers / companies performing work, information concerning hazardous chemicals in use, methods of providing SDS sheets, methods of precautionary measures to be taken and methods of providing information on labeling systems shall be provided.

Documentation of safety and health training shall include:

- Employee name or another identifier
- Training dates
- Type(s) of training
- Training providers.

This documentation shall be maintained for at least one year.



VRG Controls LLC Cal/OSHA Hazard Communication Program

Appendix 24

Inventory of Hazardous Chemicals Form

Facility Identification					
Facility Name:		Phone No.:			
Responsible Party:		Date of Last Update:			
Address:					
Chemical Name	CAS Number	Quantity	Physical State	Location	Expiration Date
			Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/>		
			Solid <input type="checkbox"/> Liquid <input type="checkbox"/> Gas <input type="checkbox"/>		
			Solid <input type="checkbox"/>		



VRG Controls LLC
Cal/OSHA Hazard Communication Program

			Liquid <input type="checkbox"/>		
			Gas <input type="checkbox"/>		
			Solid <input type="checkbox"/>		
			Liquid <input type="checkbox"/>		
			Gas <input type="checkbox"/>		
			Solid <input type="checkbox"/>		
			Liquid <input type="checkbox"/>		
			Gas <input type="checkbox"/>		
			Solid <input type="checkbox"/>		
			Liquid <input type="checkbox"/>		
			Gas <input type="checkbox"/>		



**VRG Controls LLC
Cal/OSHA Rigging Program**

56. CAL/OSHA RIGGING PROGRAM

1.142 Purpose and Scope

The purpose of this program is to provide requirements and guidance to support safe rigging and handling of loads.

This program applies to all VRG Controls LLC employees involved with rigging operations.

1.143 Resources

Number	Title
29 CFR 1926 Subpart H	Material Handling, Storage, Use, and Disposal-Rigging Equipment for Material Handling
29 CFR 1910 Subpart N	Materials Handling and Storage-Slings
29 CFR 1926 Subpart CC	Cranes and Derricks in Construction
Cal/OSHA T8 CCR Subchapter 7	General Industry Orders-Cranes and Other Hoisting Equipment

1.144 Rigging Program

The following requirements apply to slings used in conjunction with other material handling equipment for the movement of materials by hoisting.

1.145 Inspection

All slings, fastenings, and attachments must be inspected each day by a qualified person for damage or defects, prior to being used. Additional inspections shall be performed during sling use and when service conditions warrant. Damaged or defective slings must be immediately removed from service.

Hooks, slings, and associated rigging equipment that are broken or defective must be removed from service. Slings deemed defective must be removed from service and destroyed.

1.146 Slings

Wire rope or chain slings must not be shortened via bolts, knots, or other methods. Slings are prohibited from being kinked or knotted.

1.147 Safe Working Load

Slings and shackles must have affixed, permanent, and legible identification markings as required by the manufacturer that indicate the recommended safe working load.



<p style="text-align: center;">VRG Controls LLC Cal/OSHA Rigging Program</p>
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1.148 Safe Use

Employees are prohibited from loading slings and shackles beyond their rated capacities, as stated by the manufacturer. For those slings utilized in a basket hitch, the loads must be balanced to avoid slippage. Slings must be padded or contain protection from the sharp edges of the loads being lifted. Employees are prohibited from placing their hands or fingers between the sling and its load, while the sling is being tightened around the load. A sling must not be pulled from under the load while the load is resting on the sling and damage to the sling could result. Slings are required to be set to avoid any slippage.

Loads must be forbidden from being passed over employees either as a suspended load or a load about to be lifted.

Rigging used by employees shall be utilized and maintained as required by the manufacturer's recommendations. Shackles and hooks may only be used as recommended by the manufacturer.

Special custom design grabs, hooks, clamps, or other lifting accessories such as modular panels, prefabricated structures, and similar materials, must be marked to indicate the safe working loads and must be proof tested to 125 percent of the rate load prior to being used.



VRG Controls LLC
Injury / Illness Prevention Program

57. INJURY / ILLNESS PREVENTION PROGRAM

1.149 Purpose and Scope

The purpose of the program is to define the company injury and illness prevention program to help find and fix workplace hazards before workers are hurt.

This program applies to all VRG Controls LLC employees.

1.150 Resources

Number	Title
Cal/OSHA T8 CCR Subchapter 7	General Industry Safety Orders-Injury and Illness Prevention Program
CMS-FM-0031	Workplace Inspection Checklist

1.151 Injury / Illness Prevention Program

The Company shall maintain as safe and healthy an environment as is reasonably feasible for employees by:

- Conducting operations and activities in a safe manner to minimize the risk of injury to people and minimize property damage.
- Complying with applicable regulations, safety and health standards, and generally accepted practices.

1.152 Responsible Person

The Safety Coordinator has the responsibility, authority, and overall accountability of this program.

1.153 Training

Training and instruction shall be provided:

- When the program is first established
- To all new employees
- To all employees given new job assignments for which training has not previously been received
- Whenever new substances, processes, procedures, or equipment are introduced to the workplace and represent a new hazard



VRG Controls LLC Injury / Illness Prevention Program

- Whenever the company is made aware of a new or previously unrecognized hazard
- For supervisors to familiarize themselves with the safety and health hazards to which employees under their immediate direction and control may be exposed

1.154 Compliance

Every employee shall comply with safe and healthy work practices by incentives, training, re-training programs, and disciplinary programs.

1.155 Communication

Safety meetings, written communications, postings are in place to communicate to affected employees on safety and health matters.

Employees shall report safety and health hazards / problems, no matter how small, without fear of reprimand or reprisal. The system in place for employees to anonymously report safety concerns includes both electronic and paper reporting.

1.156 Employee Access

Employees shall have access to this program and its contents by:

- Providing access in a reasonable time, place, and manner, but in no event later than 5 business days after the request for access is received from an employee or designated representative.
 - Whenever an employee or designated representative requests a copy of the program, the company shall provide the requester a printed copy of the program, unless the employee or designated representative agrees to receive an electronic copy of the program.
 - One printed copy of the program shall be provided free of charge. If the employee or designated representative requests additional copies of the Program within 1 year of the previous request and the program has not been updated with new information since the prior copy was provided, the company may charge reasonable, non-discriminatory reproduction costs (per Section 3204(e)(1)(E)) for the additional copies.
- Providing unobstructed access through a company server or website, which allows an employee to review, print, and email the current version of the program. Unobstructed access means that the employee, as part of their regular work duties, predictably and routinely uses the electronic means to communicate with management or coworkers.

The program provided to the employee or designated representative need not include any of the records of the steps taken to implement and maintain the written program.



VRG Controls LLC Injury / Illness Prevention Program

For distinctly different and separate operations with distinctly separate and different programs, the company may limit access to the program (or programs) applicable to the employee requesting it.

The company shall communicate the right and procedure to access the program to all employees.

Nothing in this section is intended to preclude employees and collective bargaining agents from collectively bargaining to obtain access to information in addition to that available under this section.

1.157 Hazard Identification

Hazard assessments are in place for identifying and evaluating workplace hazards, including physical and chemical hazards. The Incident Investigation procedure must be followed to investigate occupational injury or illness.

Procedures are in place for correcting unsafe or unhealthy conditions, work practices and work procedures in a timely manner based on the severity of the hazard:

- When observed or discovered; and,
- When an imminent hazard exists, which cannot be immediately abated without endangering employee(s) and/or property, remove all exposed personnel from the area except those necessary to correct the existing condition. Employees necessary to correct the hazardous condition shall be provided the necessary safeguards.

1.158 Inspections

Periodic safety inspections are conducted and documented. Documentation includes the name of the inspector, date of inspection, and any findings.

Inspections shall be made to identify and evaluate hazards:

- When the program is first established
- Whenever new substances, processes, procedures, or equipment are introduced to the workplace that represent a new occupational safety and health hazard
- Whenever the company is made aware of a new or previously unrecognized hazard



<p>VRG Controls LLC Injury / Illness Prevention Program</p>

1.159 Records

Records of the steps taken to implement and maintain the program shall include:

- Records of scheduled and periodic inspections required to identify unsafe conditions and work practices, including person(s) conducting the inspection, the unsafe conditions and work practices that have been identified and action taken to correct the identified unsafe conditions and work practices. These records shall be maintained for at least 3 years.
- Documentation of safety and health training required for each employee, including employee name or other identifier, training dates, type(s) of training, and training providers. This documentation shall be maintained for at least 3 years.



VRG Controls LLC Injury / Illness Prevention Program

Appendix 25

Workplace Inspection Checklist

General Information			
Name of Inspector:		Date:	
Location Inspected:		Time:	
General	Yes	No	Notes
Floors: clean, dry, free from debris, clutter, and trip hazards			
Sings posted when floors are wet (e.g., when washed, spills)			
Aisles marked, clear, and unobstructed			
Stairs and landings kept clear and unobstructed			
Stairwells adequately lit; steps, treads, etc. in good condition			
Furniture/office equipment secure from tipping, appropriate for work being done			



VRG Controls LLC Injury / Illness Prevention Program

Exits, Entrances, and Parking Lot	Yes	No	Notes
Doors not blocked			
Routes, signs, and doors clearly marked; exit signs easy to see; outside entrances and parking lot clearly lit			
Walkways and parking lots free from snow, ice, water, grease, etc.			
Outdoor stairs made of grading so that water and snow cannot build up			
Environment	Yes	No	Notes
Lighting levels adequate; work areas free from glare			
Air quality adequate			
Temperature and humidity adequate			
Noise levels appropriate, signs indicating hearing protection required where noise levels are high			
Employees trained in use of personal protective equipment (PPE)			



VRG Controls LLC Injury / Illness Prevention Program

Health and Safety Postings	Yes	No	Notes
Occupational Health and Safety Act and Regulations			
Policies; Health and Safety, Violence and Harassment			
“Prevention Starts Here” poster			
Workers Comp poster			
Employment standards poster			
Name of health and safety representative			
Fire Protection and Warning Signs	Yes	No	Notes
Emergency lighting: adequate lighting, tested, and record of annual inspection			
Portable fire extinguishers: appropriate type, readily available, and inspected			
Fire exit doors: in good repair, unlocked, and free from obstruction (both sides)			
Fire/emergency alarm systems operational, fire exit signs lit			
Fire and evacuation plan posted			
Employees know the plan (ask an employee)			



VRG Controls LLC Injury / Illness Prevention Program

Hygiene and First Aid	Yes	No	Notes
Washrooms clean (chemicals are stored)			
Washing facility available (soap, warm water)			
First aid kits: supply inventory, treatment log, first aid training manual			
First aid certificates posted/available and valid			
Emergency eyewash (or showers) available and in working order			
Employees know how to get first aid when needed (ask an employee)			
Material Handling and Storage	Yes	No	Notes
Materials neatly and safely stored			
Storage shelves loaded only to capacity and heavy, awkward items on lower shelves			
Steps/ladders have non-slip surfaces and in good condition, secured when stored			
Steps/ladders positions and secured safely when in use (observe employee)			
Work done at heights follows policy and procedures			
Dock boards (bridge plates) used when loading or unloading from dock to truck			
Racks and platforms loaded only within the			



VRG Controls LLC Injury / Illness Prevention Program

limits of their capacity			
Forklift operators trained (ask employee)			
Hazardous Substances	Yes	No	Notes
Hazardous substances properly labelled, stored, and disposed of			
Safety data sheet (SDS) for each product available and accessible (ask employee)			
Safe use and storage of hazardous substances			
HAZWOPER training (ask employee)			
Flammable products stored properly			
Personal Protective Equipment (PPE)	Yes	No	Notes
PPE available and worn (observe)			
PPE maintained (ask employee)			
Training in PPE use and care (ask employee)			



VRG Controls LLC Injury / Illness Prevention Program

Electrical	Yes	No	Notes
Extension cords secured and in good condition (no exposed wired or bent prongs)			
Portable hand tools grounded or double insulated, cord in good condition			
Machines properly grounded			
Clear access to electrical panels and no combustible material stored nearby			
Tools and Machinery	Yes	No	Notes
Guarding and safety devices in place			
Start/stop switches clearly marked and easy to reach			
Safe operating procedures available			
Defective tools tagged and removed from service			
Proper training given in the safe use of tools and machinery			
Manufacturer's manuals available for all tools and machinery			



VRG Controls LLC Injury / Illness Prevention Program

Security	Yes	No	Notes
Emergency numbers for internal and external contacts easily available			
Visitor/contractor rules in place			
Safety measures in place for anyone working along (ask employee)			
Working with money: safe procedures and emergency procedures in place			
Training on workplace violence and harassment (ask employee)			
Other	Yes	No	Notes



VRG Controls LLC Management of Change Program
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58. MANAGEMENT OF CHANGE PROGRAM

1.160 Purpose and Scope

The purpose of this program is to identify potential hazards associated with changes before they occur.

This program applies to all VRG Controls LLC employees.

1.161 Management of Change Program (MOC)

Change is necessary to meet varying circumstances, make needed improvements, or respond to emergency conditions. Careful consideration must be given to the safety and environmental implications that result from any change. Without proper review, a change may result in unsafe conditions, process hazards, or operating problems.

These management of change policies and procedures described in this program are utilized whenever there is a change in personnel that creates or exposes them to new hazards. Routine personnel vacancies and replacements, rotation, and shift changes should not require additional MOC action.

When revisions to operating procedures, safe work practices, and training programs are necessary, employees shall be consulted regarding the development and implementation of the newly revised procedures.

Communication of proposed changes must be made to the appropriate personnel.

1.162 Training

Employees, including contractors, whose job tasks will be affected by a change in the operation, shall be informed of, and trained in, the change prior to startup of the process or affected part of the operation.

1.163 Modifications

Modifications associated with the following require the use of the MOC program:

- Equipment
- Operating procedures (changes shall be documented and dated)
- Personnel changes (including supervisors and contractors)
- Materials



VRG Controls LLC Management of Change Program
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- Operating conditions

1.164 Replacement in Kind

The MOC program does not apply to situations involving replacement in kind such as replacement of one component by another component with the same performance capabilities or routine personnel vacancies and replacements, rotation, and shift changes.

1.165 MOC Procedure Requirements

The following shall be included in the MOC procedure:

- The technical basis for the change.
- The impact of the change on safety, health, and the environment.
- Necessary time period to implement the change.
- Management approval procedures for the change.

1.166 MOC Procedure

When preparing the MOC, consider the effects of the proposed change on unrelated upstream and downstream facilities, revisions on operating procedures, safe work practices and training, revisions of the safety and environmental information, new hazards created by the change, the communications required for that change, and the impact the change will make on affected personnel.

The Appendix has a diagram of the process.

1.166.1 Initiator of the MOC Completes Heading Information

- MOC type
- Location name
- Name of person initiating MOC
- Field name / identifier
- Date initiated

1.166.2 Initiator of MOC Completes Section 1

- Description of the change; what is the change?
- Reason for change; why are you making the change?
- Enter start and end dates and times.



VRG Controls LLC Management of Change Program
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- Impact change will have on health, safety, and the environment.

1.167 Approval Process

Personnel authorized to approve changes include the Safety Coordinator and Management.

1.167.1 Authorized Approver #1 Completes Section 2

- Check approved or denied box; if approved, complete remaining section.
- Check if operating procedures need editing.
- Sign and date.
- Check other boxes appropriate to the change.
- Write comments: details, stipulations, etc.
- Send for further review and approval or denial.
- If denied, explain in the comments section, and return to initiator.

1.167.2 Authorized Approver #2 Completes Section 3

- Check approved or denied box, if approved, complete remaining section.
- Sign and date.
- Write comments: details, stipulations, etc.
- Send for further review and approval or denial.
- If denied, explain in the comments section, and return to Authorized Approver #1.

1.167.3 Authorized Approver #1 sends MOC to Location Person in Charge (PIC)

The Location PIC takes the following actions:

- Verifies the MOC is complete and approved.
- Attaches all documents and/or drawings related to the change to the MOC form.
- File the MOC as per Company requirements so it is available upon request.

1.168 Training and Awareness

Once the MOC has been approved, affected personnel are made aware of and/or trained in the operation of the equipment or system associated with the change prior to startup.



VRG Controls LLC Management of Change Program
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1.169 Hazard Analysis

Once the work is complete, a hazard analysis may be required to identify any new hazards resulting from the work.

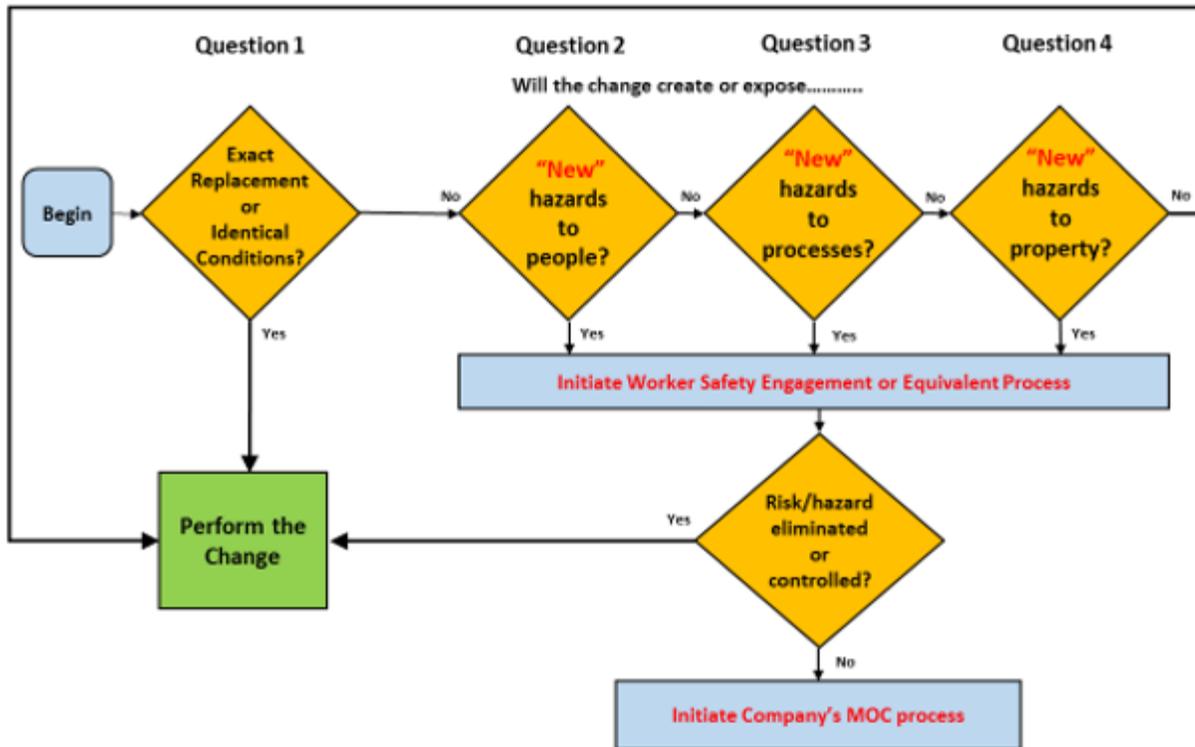
1.170 Changes in Operating Procedures, Safe Work Practices, and Training Programs

If the MOC results in a change in the operating procedures, safe work practices, or training programs, document the changes within the relevant procedure. Consult employees regarding the development and implementation of the newly revised procedures.

**VRG Controls LLC
Management of Change Program**

Appendix 26

Management of Change Process Flowchart





VRG Controls LLC Management of Change Program
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Appendix 27

Management of Change Form

General Information			
MOC Type:		Date:	
Initiator Name:			
Location:			
Section 1: <i>To be completed by Initiator</i>			
Description of Change:			
Reason for Change:			
Work Start Date:		Work End Date:	
Work Start Time:		Work End Time:	
Impact change will have on health, operating procedures, safety, and the environment:			



VRG Controls LLC
Management of Change Program

Section 2:

To be completed by authorized person #1

- | | | | | |
|---|---------------------------------|--|---|---|
| <input type="checkbox"/> Approved | <input type="checkbox"/> Denied | <input type="checkbox"/> Edit
Operating
Procedures | <input type="checkbox"/> Permit
Required | <input type="checkbox"/> Training
Verified |
| <input type="checkbox"/> Qualifications
Verified | | | <input type="checkbox"/> Other: | |

Comments:

Signature:

Date:



**VRG Controls LLC
Management of Change Program**

Section 3:			
<i>To be completed by authorized person #2</i>			
<input type="checkbox"/> Approved <input type="checkbox"/> Denied <input type="checkbox"/> Hazard Analysis Required <input type="checkbox"/> Permit Required			
Estimated Costs:		Downtime:	
Capital		Days	
Expense		Other	
Total		Other	
AFE Required:	<input type="checkbox"/> Yes <input type="checkbox"/> No	Approval Name and Number:	
Billable to:		Work Completed Date and Time:	
Documents / Drawings Attached:			
Comments:			
Signature:			Date:
Initiator Signature			
Printed Name:		Signature:	Date:



VRG Controls LLC Non-DOT Drug and Alcohol Policy

59. NON-DOT DRUG AND ALCOHOL POLICY

1.171 Purpose and Scope

The purpose of this policy is to eliminate drug and alcohol abuse among employees and to prevent the threat to the health and safety of employees and to the security of the company's equipment and facilities caused by drug and alcohol abuse.

This policy applies to all VRG Controls LLC employees.

1.172 Non-DOT Drug and Alcohol Policy

The use, sale, purchase, transfer, possession, or presence in one's system of any controlled substance (except medically prescribed drugs) by any employees while on the Company's premises, engaged in Company business, operating Company equipment, or while under the authority of the Company is strictly prohibited.

The unauthorized use, sale, purchase, transfer, possession, or presence in one's system of alcohol or any other intoxicating agent by any employee while on the Company's premises, engaged in Company business, operating Company equipment, or while under the authority of the Company is strictly prohibited.

The possession, use, distribution, or sale of illegal drugs or alcohol on Company property, in Company vehicles, or while conducting Company business is strictly prohibited. Any employee or individual found in violation of this policy will be subject to immediate removal from Company property and may face disciplinary action up to and including termination of employment.

1.173 Pre-Employment Testing

Applicants being considered for hire shall pass a drug test before beginning work or receiving an offer of employment. Refusal to submit to testing will result in disqualification of further employment consideration.

1.174 Random Testing

Drug and alcohol testing shall be administered at random times for all employees. Employees shall be chosen through an unbiased selection process. No qualifiers or exclusions can be made to limit the applicability of the random testing requirement.



VRG Controls LLC Non-DOT Drug and Alcohol Policy

1.175 Reasonable Suspicion

If a company official or competent person has determined that there is reasonable cause or suspicion that an individual is performing work under the influence, then that individual shall be required to submit to a drug and alcohol test.

1.176 Incidents

Employees involved in a work-related incident where drug or alcohol use can be reasonably suspected as contributing to the incident shall be tested. This does not require testing for all work-related incidents.

1.177 Site Removal

Any employee that receives unacceptable drug and alcohol test results shall not be allowed to work on a client / host site or facility.

1.178 Return to Duty and Follow Up

Employees retained by the Company after a positive test result or a test refusal shall be subject to return-to-duty drug and alcohol testing. No employee shall be permitted to perform any safety-sensitive function until they have received a verified negative drug and alcohol test result. Thereafter, such employees shall be subject to certain follow-up drug and alcohol testing as established by a Substance Abuse Professional (SAP).

1.179 Drug Test Refusal

Drug testing refusal includes:

- Failure to appear at a collection site for any test (except a pre-employment test) within a reasonable time, as determined by the Company. This includes the failure of the employee to appear for a test when called by the Company's third-party administrator.
- Failure to remain at the collection site until the testing process is complete, provided that a person who leaves the testing site before the testing process commences for a pre-employment test is not deemed to have refused to test.
- Failure to provide a specimen.
- Failure to permit a monitored or observed collection if the Company ordered or if the collector required the collection to be monitored or observed or if instructions during monitoring are not followed.



VRG Controls LLC Non-DOT Drug and Alcohol Policy

- Failure to provide a sufficient amount of urine specimen, provided the Medical Review Officer (MRO) finds there was no medical reason for the employee to provide insufficient amount of urine.
- Failure or declination to take an additional drug test that the Company or collector has directed.
- Failure to undergo a medical examination or evaluation the MRO or the Company has directed.
- Failure to cooperate with any part of the specimen collection process.
- Possessing or wearing a prosthetic or other device that could be used to interfere with the collection process if the employee is found to have or wear a prosthetic or other device designed to carry clean urine or a urine substitute.
- Admitting to the collector to having adulterated or substituted the specimen.
- Adulterated or substituted a urine specimen.
- Admitting to the MRO to having adulterated or substituted the specimen.

1.180 Alcohol Testing Refusal

Alcohol testing refusal includes:

- Failure to appear at an alcohol test site for any test within a reasonable time, as determined by the Company. This includes the failure of the employee to appear for a test when called by the Company's third-party administrator.
- Failure to remain at the alcohol test site until the testing process is complete.
- Failure to provide an adequate amount of saliva or breath.
- Failure to provide a sufficient breath specimen, provided the physician finds that there was no medical reason for the employee to provide an insufficient amount of breath.
- Failure to undergo a medical examination or evaluation as the Company has directed as part of the insufficient breath procedures.
- Failure to cooperate with any part of the testing process.



<p>VRG Controls LLC Non-DOT Drug and Alcohol Policy</p>

1.181 Searches

To maintain a safe, productive, and drug-free workplace, the Company reserves the right to conduct searches of all employees, visitors, contractors, and their personal property while on company premises. This includes, but is not limited to, bags, lockers, desks, vehicles, and other containers brought onto company property.

By entering Company property, all individuals consent to such searches when requested. Refusal to comply with a search request may result in denial of access to company property, disciplinary action up to and including termination of employment, or removal from the premises.

The purpose of this policy is to ensure compliance with our drug and alcohol policy, protect the safety of all personnel, and maintain a secure work environment.



VRG Controls LLC Records and Documentation Program

60. RECORDS AND DOCUMENTATION PROGRAM

1.182 Purpose and Scope

The purpose of this program is to ensure compliance with regulatory requirements, facilitate effective decision-making, and support the continuous improvement of our safety and environmental performance.

This program applies to all VRG Controls LLC employees.

1.183 Operator/Contractor Agreements

An agreement is required between the contractor and the operator regarding the safety and environmental policies and procedures.

1.184 Documentation System

It is a requirement that a documentation system for the safety and environmental management system must be created and maintained.

Records or documentation will be in either paper or electronic form.

The safety and environmental management program (SEMP) documentation will be integrated into the operator's filing or document control system.

The documentation of records pertinent to the maintenance and sustainability of the organization's SEMP is required.

The following types of records, at a minimum will be documented and maintained:

- Information on applicable regulations
- Complaint records
- Training records
- Process information
- Product information
- Inspection, calibration, and maintenance records
- Pertinent contractor and supplier information
- Incident reports
- Emergency preparedness and response information
- Significant environmental information
- Management of Change (MOC) provisions



VRG Controls LLC Records and Documentation Program

Documentation and records must be readily retrievable and protected against damage or deterioration.

All hard copy documents on the facility must be kept up-to-date and to ensure that any updates or changes are reflected.

1.185 Safety Policies and Procedures

The Company safety policies and procedures are readily available for operator client review.

1.186 Personnel Training, Knowledge, and Experience

It is a requirement to record and document personnel training, knowledge, and experience as necessary for the employee to perform their job in a safe and environmentally sound manner.

Such documentation may be requested by operator clients and shall be readily available to clients.

1.187 Management Review

Management will review the SEMP annually to determine if it continues to be suitable adequate and effective.

The management review must address the possible need for changes to policy, objectives, and other program elements.

The review must also take into consideration program audit results, changing circumstances and continual improvement.

Documentation of the management review observations, conclusions and recommendations must be made by management.

All hard copy documents on the facility must be kept up-to-date ensuring that any updates or changes are reflected.



**VRG Controls LLC
Rigging Program**

61. RIGGING PROGRAM

1.188 Purpose and Scope

The purpose of this program is to provide requirements and guidance to support safe rigging and handling of loads.

This program applies to all VRG Controls LLC employees involved with rigging operations.

1.189 Resources

Number	Title
29 CFR 1926 Subpart H	Material Handling, Storage, Use, and Disposal-Rigging Equipment for Material Handling
29 CFR 1910 Subpart N	Materials Handling and Storage-Slings
29 CFR 1926 Subpart CC	Cranes and Derricks in Construction
Cal/OSHA T8 CCR Subchapter 7	General Industry Orders-Cranes and Other Hoisting Equipment

1.190 Rigging Program

The following requirements apply to slings used in conjunction with other material handling equipment for the movement of materials by hoisting.

1.191 Inspection

Each day and on each shift before being used, the slings and all fastenings and attachments shall be inspected for damage or defects by a qualified person. Additional inspections shall be performed during sling use, where service conditions warrant.

Slings and hooks that are damaged or defective shall not be used. Defective rigging equipment shall be removed from service.

1.192 Qualification

Only qualified riggers may be used during hoisting activities.

A rigger is anyone who attaches or detaches lifting equipment to loads or lifting devices. In order to be considered a qualified rigger, the person shall be qualified by the employer to perform specific rigging tasks and possess a recognized degree, certificate, or professional standing, or has extensive knowledge, training, and experience, and can successfully demonstrate the ability to solve problems related to rigging loads.



VRG Controls LLC Rigging Program

1.193 Rated Capacity and Identification

Rigging equipment shall have permanently affixed and legible identification markings as prescribed by the manufacturer that indicate the recommended safe working load. Rigging shall not be loaded in excess of its recommended safe working load as prescribed on the identification markings by the manufacturer; and shall not be used without affixed, legible identification markings.

Chains, wire ropes, synthetic or metal web slings, shackles or any other lifting attachments without permanently affixed and legible identification markings prescribed by the manufacturer shall not be used.

1.194 Safe Use of Rigging

Rigging equipment, when not in use, shall be removed from the immediate work area so as not to present a hazard to employees.

Tag lines shall be used unless their use creates an unsafe condition.

Hooks used in the connection between the hoist line and the personnel platform (including hooks on overhaul ball assemblies, lower load blocks, bridle legs, or other attachment assemblies or components) must be:

- Of a type that can be closed and locked, eliminating the throat opening.
- Closed and locked when attached.

Suspended loads shall be kept clear of all obstructions and all employees shall be kept clear of loads about to be lifted and of suspended loads.

Shock loading is prohibited.

Chain or wire rope slings shall not be shortened with knots or bolts or other makeshift devices. Slings shall not be kinked or knotted.

Slings used in a basket hitch shall have the loads balanced to prevent slippage.

Slings shall be padded or protected from the sharp edges of their loads.

Hands or fingers shall not be placed between the sling and its load while the sling is being tightened around the load.

A sling shall not be pulled from under a load when the load is resting on the sling and damage to the sling may result.

Slings shall be set to avoid slippage.

Rigging shall be used and maintained in accordance with manufacturer's recommendations.



<p style="text-align: center;">VRG Controls LLC Rigging Program</p>

Hooks and shackles shall only be used in a manner recommended by the manufacturer.

Proof coil steel chain, also known as common or hardware chain, or other chain not recommended for slinging or hoisting by the manufacturer, shall not be used for hoisting purposes.

Wrought iron chains in constant use shall be annealed or normalized at intervals not exceeding 6 months when recommended by the manufacturer. The chain manufacturer shall be consulted for recommended procedures for annealing or normalizing. Alloy chains shall not be annealed. Deformed hooks or rings shall be replaced or repaired and reshaped under proper metallurgical control and proof tested. Proper annealing or normalizing procedures done only in accordance with the chain manufacturer's specifications shall be followed.

1.194.1 Proof Testing

Special custom design grabs, hooks, clamps, or other lifting accessories for such units as modular panels, prefabricated structures and similar materials, shall be marked to indicate the safe working loads and shall be proof-tested to 125% of the rated load prior to use.



VRG Controls LLC
Safety Observation Program

62. SAFETY OBSERVATION PROGRAM

1.195 Purpose and Scope

The purpose of this program is to proactively prevent incidents and injuries through the monitoring, trending, and management of safe vs. unsafe behaviors. The effective communication of safe and unsafe behavior trends to the employees and project management is critical to a successful program.

This program applies to all VRG Controls LLC employees.

1.196 Resources

Number	Title
CMS-FM-0074	Safety Observation Form

1.197 Safety Observation Program Overview

Employees observe other employees performing job tasks. The observer then decides, based upon knowledge and experience, whether the behavior is “safe” or “unsafe” and provides immediate feedback to the employee who performed the task. The observation must be documented for verification.

The person responsible for oversight of the program is:

Name:

Title:

Contact Information:

1.198 Requirements for Monitoring and Measuring

We will systematically monitor and measure OH&S performance through documented processes. Monitoring methods include daily workplace inspections, weekly hazard observation forms, and monthly compliance reviews. Data will be collected using predefined tools and reviewed for accuracy.

Monitoring and measurement activities will occur at the following intervals:

- Daily: Equipment inspections by operators.
- Weekly: Safety walkthroughs by supervisors.
- Monthly: Management review of all reported incidents and near-misses.



VRG Controls LLC Safety Observation Program
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Safety observations must be documented at a minimum of one a week for each project or crew to ensure compliance with customer and regulatory safety requirements for personnel and sub-tier workforces under direct control.

The key to a successful observation is the initial contact between the observer and the worker or workers that are the subject of the observation. Observers are trained to establish a friendly contact and explain the purpose of the observation and that they will identify both the positive observations and the behavior or unsafe condition that requires correction. The Observer will solicit the observed employee's comments as to a solution for the unsafe behavior and record on the form. It is also stressed that with the exception of an intentional and flagrant safety violation, there are no names to be associated with the observation. If the worker being observed fails to correct or respond positively to the observer, the supervisor is called, and the observation is halted. Normally, however, the observer finds nothing but safe behavior and thanks the worker for their cooperation and gives the worker praise for doing their job safely.

1.199 Training

Training provided shall include:

- Review of the program objectives and incident metrics.
- How to conduct observations.
- How to complete the observation form.
- Mentoring and coaching by role play for feedback training.
- Employee awareness of being observed at any time.

1.200 Observation and Feedback

Observation and feedback are the most important components. Observations provide direct, measurable information on employees' work practices, identifying both safe and unsafe behaviors.

Frequent, objective feedback is essential in maintaining safe behavior.

For safe behaviors, provide positive feedback. For unsafe behaviors, provide non-threatening, instructive feedback.



VRG Controls LLC Safety Observation Program
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1.200.1 Observers

Observers may be any employee that is trained on the process. One observer should be assigned per shift or per department. Management shall allow employee time to be allocated to this process.

Management shall also be included as observers for quality control and leadership engagement purposes.

1.200.2 Providing Feedback

Employees providing feedback shall be trained as coaches.

Frequency of feedback shall be determined by the risk associated with the task, the number of targeted employees, the separate work areas, or level of employees.

Typically, feedback is given immediately following the observation, reviewing which critical behaviors were performed safely or unsafely.

If the feedback should include disciplinary action, it should only be given by the employees' supervisor.

For overall corrective action, regular department meetings should be held to review the behaviors.

The observer will:

- Review the observation with the observed employee.
- Start with positive comments.
- Reinforce safe behaviors observed first.
- Describe and discuss unsafe behaviors observed.
- Solicit from the observed employee explanations of their unsafe behaviors with open-ended questions.
- Re-emphasize no consequence to observed employee.

1.201 Root Causes and Contributing Causes

A root causal analysis on each causal factor will be performed. The analysis will identify immediate/direct causes that exist because of basic/underlying causes that may be due to a system failure.



VRG Controls LLC Safety Observation Program

The following guidelines will be used when performing the root cause analysis:

- Immediate/direct causes are probable when identifiable unsafe practices, acts, and/or unsafe conditions exist which led directly to an incident. These contributing causes are symptomatic only, and elimination of these will not prevent a recurrence of the event.
- It is possible, in some cases, that a management system failure will not exist and that the root cause will stop at the basic/underlying cause. An example of this might include when an incident occurs due to an employee using poor judgment even though all verifiable evidence shows they were properly trained and aware of the hazards and/or their responsibilities.

In these cases, recommended actions may include:

- A corrective action to communicate or remind employees through pre-shift toolbox meetings to stay alert of similar hazards.
- A recommendation for disciplinary action.

A consensus on recommended actions will be formed targeting each root cause identified.

Recommended actions will consider the following three types of actions:

- Mitigating actions: Short term actions to correct a management system failure, unsafe personal or job factor, and/or unsafe act or condition. These must target immediate causes.
- Corrective actions: Implementation of measures to prevent the recurrence of a similar incident in other areas or involving other types of personnel, equipment, or facilities. These must target underlying or root causes.
- Disciplinary actions: Actions for administering discipline to personnel who knowingly and willfully violate a Company policy/procedure.

Consideration shall be given before identifying disciplinary actions so that the observation process does not become downgraded to a point that limits its ability to properly identify root causes.

1.202 Corrective Action

The Company addresses unsafe observations and takes preventative and corrective action in order to:

- Mitigate consequences of the unsafe actions
- Avoid occurrences and recurrence of the unsafe actions
- Record and communicate the results of preventive and corrective actions taken



VRG Controls LLC Safety Observation Program
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- Review the effectiveness of preventive and corrective actions

Where the corrective action identifies new or changed hazards or the need for new or changed controls, the proposed actions shall be taken through a risk assessment prior to implementation.

Corrective action taken to eliminate the causes of actual and potential incidents shall be appropriate to their severity level and commensurate with the risks encountered.

Corrective actions shall be collected and analyzed independently.

The entire process for review of the at-risk findings, root/contributing causes, and corrective actions put in place to prevent recurrence shall be completed within one week of the initial findings.

1.203 Data Collection and Trend Analysis

All Safety Observations, along with pictures with comments as needed for context, will be sent to the office to be scanned into our network in addition; all Safety Observations will be entered into a database which will be trended for percent safe and unsafe behaviors.

1.204 Utilization

Results from observations, cause analysis, trend analysis, corrective actions, and the overall effectiveness of the Safety Observation Program shall be disseminated across the company through email, safety meetings, toolbox talks, and all hands meetings.

1.205 Success Measurement and Performance Evaluation Criteria

Results will be analyzed using trend analysis tools to evaluate progress against OH&S objectives. Evaluation findings will be compiled into monthly reports distributed to management and employees. Key results will be highlighted during quarterly safety meetings.

Individual departments, as well as the Company as a whole, will compare measurements and track these results by an acceptable method so that numerical and statistical comparisons can be made over time.

If employees are performing their tasks with a higher percentage of safe behaviors, injuries are less likely to occur.

Calculate the incident rate and evaluate at set intervals.

Incident Rate = (number of incidents x 200,000) / total man hours.

Tracking these measurements allows for statistical comparison over time for continuous improvement.



<p style="text-align: center;">VRG Controls LLC Safety Observation Program</p>
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Performance will be evaluated against the following criteria: regulatory compliance, reduction in incident rates, and 100% completion of mandatory training programs.



VRG Controls LLC Safety Observation Program
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Appendix 28

Safety Observation Form

General Information			
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Project:		Report No.:	
Surveyed By:		Supervisor:	
Location:		Date:	

Type of Observation		
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Work Practice	Health or Wellbeing	First Aid
Fire Safety	Housekeeping	PPE
Electrical Safety	Machinery	Hazardous Substances
Working at Heights	Safety Signs	Lighting
Permit System	Instructions, Guidelines, Training	Workplace or Workspace
Supervision	Tools or Equipment	Vehicles
Environmental	Positive Observation	Other Observation or Risk

Observations				
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No.	Description of Observation	Risk Rating			Action Required	Responsible Person
		H	M	L		



VRG Controls LLC Safety Observation Program
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Action Plan					
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No.	Description of Required Action	Responsibility	Target Date	Closing Date	Status (Closed/Open)

Signatures					
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Employee Signature:		Date:	
Supervisor Signature:		Date:	



VRG Controls LLC
Cal/OSHA Electrical Program – Low Voltage

63. CAL/OSHA ELECTRICAL PROGRAM – LOW VOLTAGE

1.206 Purpose and Scope

The purpose of this program is to define the safety requirements that all employees shall adhere to when working with low voltage electrical equipment.

This program applies to all VRG Controls LLC employees working with low voltage electrical equipment.

1.207 Resources

Number	Title
Cal/OSHA T8 CCR Subchapter 5	Electrical Safety

1.208 Electrical – Low Voltage

Electricity is dangerous when used without proper training, knowledge, and planning. The following basic safety principles provide guidance to use electricity safety prior to the start of work.

1.209 Qualification

Only those persons who have been deemed qualified to work on energized electrical equipment or systems may do so. Only qualified electrical workers are permitted to conduct any function in the proximity to energized conductors unless a method to prevent accidental contact has been provided.

1.210 Safe Work Procedures

Work may not be performed by employees on exposed energized equipment or systems until responsible supervision has concluded that the work must be performed while the equipment of systems is energized, the affected employees designated to perform the work have received training on the hazards and safe work practices involved in working on energized equipment, and appropriate personal protective equipment (PPE) along with suitable safeguards are in place and used.

An authorized person must be designated to be responsible for ensuring that any temporary personal protective equipment is removed from the work area and that all permanent barriers or covers are reinstalled.



<p style="text-align: center;">VRG Controls LLC Cal/OSHA Electrical Program – Low Voltage</p>

Employees must consider all electrical equipment and systems to be energized until such equipment or systems have been tested or otherwise proven to be deenergized.

Employees must utilize lockout, tagout, or both (LOTO) procedures before working with electric equipment or circuits which have been deenergized.

Suitable temporary barriers or barricades must be used when access to opened enclosures containing exposed energized equipment, if not under the control of an authorized person.



VRG Controls LLC
Fire Protection Program

64. FIRE PROTECTION PROGRAM

1.211 Purpose and Scope

The purpose of this program is to describe a framework for fire hazards commonly occurring at work sites and provide protocols and procedures to control these hazards.

This program applies to all VRG Controls LLC employees.

1.212 Resources

Number	Title
29 CFR 1926 Subpart F	Fire Protection
29 CFR 1910 Subpart L	Fire Protection and Prevention
Cal/OSHA T8 Subchapter 7	General Industry Safety Orders
Cal/OSHA T8 Subchapter 4	Construction Safety Orders
NFPA 10	Portable Fire Extinguishers

1.213 Fire Protection Program

Ignition sources can include any material, equipment, or operation that emits a spark or flame including obvious items, such as torches, as well as less obvious items, such as static electricity and grinding operations. Equipment or components that radiate heat, such as kettles, catalytic converters, and mufflers, also can be ignition sources.

Fuel sources include combustible materials, such as wood, paper, trash, and clothing; flammable liquids, such as gasoline or solvents; and flammable gases, such as propane or natural gas.

1.214 Training

Where portable fire extinguishers are provided for employee use, employees shall be trained to familiarize themselves with the general principles of fire extinguisher use and the hazards associated with basic firefighting.

Employees who are expected to use fire extinguishers in case of emergency shall be trained during their orientation upon initial assignment. Refresher training shall occur at least annually.



VRG Controls LLC Fire Protection Program

1.215 Inspection

Portable fire extinguishers shall be subjected to monthly visual inspections and annual servicing / maintenance. Monthly inspections involve a visual check to ensure the pin is in place, it is adequately charged, and not corroded. Visual inspections shall be noted on the tag. The annual servicing and inspection are more thorough. The annual inspection is typically performed by a third-party professional, as it may involve re-charging the extinguisher and maintenance / servicing.

The annual maintenance date shall be recorded and retained for 1 year after the last entry or life of the shell, whichever is less.

1.216 Selection and Distribution

Portable fire extinguishers shall be provided for employee use and selected and distributed based on the classes of anticipated workplace fires and on the size and degree of hazard which would affect their use.

Management shall examine its premises and processes thoroughly and repeatedly, correcting threatening situations as soon as they are identified. In addition, adequate fire protection equipment shall be provided.

Particular guidance on fire codes and standards may be sought from manufacturers of fire protection equipment and systems, local municipal fire departments, the company insurance agency, the National Fire Protection Association (NFPA), and other fire protection agencies whose services may be secured on a consulting or staff basis.



**VRG Controls LLC
Fire Protection Program**

1.217 Number of Extinguishers Required

See NFPA 10 for classification of occupancy hazards.

Class A Hazards (ordinary combustibles such as wood, cloth, paper, rubber, and many plastics)

Criteria	Light Hazard Occupancy	Ordinary Hazard Occupancy	Extra Hazard Occupancy
Minimum rated single extinguisher	2-A	2-A	4-A
Maximum floor area per unit of A	3000 sq ft	1500 sq ft	1000 sq ft
Maximum floor area per extinguisher	11,250 sq ft	11,250 sq ft	11,250 sq ft
Maximum travel distance to extinguisher	75 ft	75 ft	75 ft

Class B Hazards (flammable or combustible liquids, petroleum greases, tars, oils, oil-based paints, alcohols, solvents, lacquers, flammable gases, and similar materials)

Basic Minimum Extinguisher Rating for Area Specified	Basic Minimum Extinguisher Rating	Maximum Travel Distance to Extinguishers
Light (low)	5B 10B	30 ft 50 ft
Ordinary (moderate)	10B 20B	30 ft 50 ft
Extra (high)	40B 80B	30 ft 50 ft



VRG Controls LLC Fire Protection Program

Class C Hazards (energized electrical equipment)

Live electrical fires require certain types of extinguishing agents (e.g., CO², powder, halon). If the power can be turned off the fire hazard is reclassified as a class A or B. However, certain types of electrical equipment, such as capacitors, retain electrical charge even when electricity is turned off.

Class D Hazards (combustible metals such as magnesium, titanium, zirconium, sodium, lithium, and potassium)

Distribution of portable fire extinguishers for Class D hazards, such as combustible metal powders, flake, or shavings are required in the work areas so that the maximum travel distance is 75 feet or less in any direction.

Class K Hazards (cooking appliances that involve combustible cooking media such as vegetable or animal oils and fats)

Fire extinguishers provided for the protection of cooking grease fires shall be of an approved type compatible with the automatic fire-extinguishing system agent. Class K portable fire extinguishers must be located 30 feet of travel distance from the hazard to the extinguishers.

1.218 Requirements of Portable Extinguishers

- Extinguishers shall be fully charged and kept in their designated areas.
- Extinguishers shall be conspicuously located, clearly marked as to their intended use, and not be unobscured from view.
- The top shall not be more than 5 feet above the floor if the extinguisher weighs less than 40 lbs. The top must not be more than 3.5 feet above the floor if the extinguisher weighs more than 40 lbs. Clearance between the floor and the bottom of the extinguisher shall not be less than 4 inches.
- Extinguishers shall be thoroughly examined and/or recharged or repaired as needed at regular intervals not more than 1 year apart.
- Extinguishers shall be hydrostatically tested at the specified interval.



<p style="text-align: center;">VRG Controls LLC Fire Protection Program</p>

1.219 Reporting of Hostile Fires

All hostile fires resulting in property damage, no matter how small, shall be investigated to prevent recurrence and to develop loss experience data upon which preventative measures can be based.

- Investigation – fires shall be investigated by the appropriate personnel (HSE, incident commander, etc.).
- Reporting – copies of the completed investigation reports shall be distributed to management.



<p>VRG Controls LLC</p> <p>Fire Response Program – Accounting for Employees</p>

65. FIRE RESPONSE PROGRAM – ACCOUNTING FOR EMPLOYEES

1.220 Purpose and Scope

The purpose of this program is to ensure employees understand the procedures for checking in and checking out during a fire response.

This program applies to all VRG Controls LLC employees involved in fire response.

1.221 Fire Response – Accounting for Employees

Employees that undertake work-related fire response are required to follow check-in and check-out procedures to ensure they are out of danger and accounted for.

Staging areas for check-in and check-out must be located upon arrival to receive, brief, assign incoming resources, and formally check-in and check-out.

Signs must be posted so arriving resources can easily find the check-in/check-out locations.

1.222 Check-In/Check-Out Procedure

All employees that will be considered part of the response will need to check in with the Incident Management Team at the designated staging area and complete the proper paperwork.

Status/Check-in/Check-Out Recorders are used at each check in location to ensure that all employees assigned to an incident are accounted for. This person/system must ensure that complete information is obtained at check-in/check-out.

Employee status information must be prepared, posted, and maintained.

Check-in/check-out information must be transmitted to the proper incident commanders on regular, prearranged schedules.

The Staging Area Manager, will advise:

- What channel to operate on
- Whom to report to
- Specific work location

Employees dispatched to a staging area or returning from the staging area are to maintain communications with the designated contact.

All units departing the staging area for the incident are to be on their assigned incident channel.



VRG Controls LLC

Fire Response Program – Accounting for Employees

Confirm that the Status/Check-in/Check-Out Recorder has completed check-out with all sections before departing.

1.223 Work in Remote Locations

Partnered work is required in any area with no cell service, in remote areas, and in wildfire areas.

Always carry a cellular phone, or other two-way communication device, in case emergency medical help is required.

Be aware of your surroundings and note any wild or suspicious acting animals in your work area.

If necessary, seek safe shelter from these animals and contact the appropriate authorities.

Avoid reaching or stepping into or over hidden areas that may contain wildlife.

Avoid direct contact with birds, bats, or other animal droppings.

Avoid direct contact with animal blood. If contact cannot be prevented, wear rubber gloves, and dispose properly.



VRG Controls LLC Fire Watch Program
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66. FIRE WATCH PROGRAM

1.224 Purpose and Scope

The purpose of this program is to provide information on the requirements for and responsibilities of a fire watch.

This program applies to all VRG Controls LLC employees.

1.225 Fire Watch

Hot work is any work that involves burning, welding, cutting, brazing, soldering, grinding, using fire or spark-producing tools, or other work that produces a source of ignition.

The number one safety recommendation for hot work is to determine whether there is an alternative to hot work.

Hot work hazards can be avoided if there is an alternative method to complete the job, such as:

- Screwed, flanged, or clamped pipe
- Manual hydraulic shears
- Mechanical bolting or pipe cutting
- Compressed air-actuated fasteners

1.226 Requirements

If hot work cannot be avoided, certain precautions must be taken, such as the use of a fire watch. A fire watch is an employee who is required to be onsite where hot work is being done to prevent fires, sound an alarm, and put out any fires that happen.

A fire watch must be onsite whenever welding or cutting is done in locations where a major fire could develop and if any of these conditions exist:

- Combustible materials are closer than 35 feet to the operations.
- Combustibles are more than 35 feet away but could be easily ignited by sparks.
- There is a wall or floor opening within a 35-foot radius of exposed combustible material.
- Combustible materials near the other side of metal partitions, walls, ceilings, or roofs could be ignited by conduction or radiation.



VRG Controls LLC Fire Watch Program
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1.227 Responsibilities

Fire watch responsibilities include:

- Not having any other duties while they are on shift.
- Activating the employee alarm system.
- Keeping themselves and other employees' alert.
- Knowing the exact location of firefighting equipment.
- Making sure all employees are aware of the exact location of firefighting equipment in the immediate area.
- Maintaining clear and constant contact with employees in hot work areas.
- Maintaining the conditions and requirements stated on the work permit.

Other fire watch responsibilities include:

- Calling 911 or the provided emergency number.
- Stopping operations if hazardous conditions exist.
- Inspecting the entire work area before and during each work shift, looking for potential releases of flammable vapors or liquids.
- Being prepared to use fire extinguishers, hydrants, fixed monitors, and hose carts at any time.
- Never leaving the jobsite while work is being done (if you must leave, stop the job and notify the employees).
- Returning all firefighting equipment to its original location.

The National Fire Protection Association (NFPA) 51B Standard for Fire Prevention During Welding, Cutting, and Other Hot Work requires fire watches to remain onsite for a minimum of 60 minutes.

The permit authorizing individual could require the fire watch to remain onsite longer depending on the conditions of the worksite.

Before leaving the hot work area, fire watches should double check for possible fire hazards, such as embers or hot sparks.



VRG Controls LLC Fire Watch Program
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1.228 Hot Work Permit

A fire watch must make sure that a hot work permit is followed. A work permit is a written authorization used to control potentially hazardous work and the environment where the work will be done.

The hot work permit helps the permit authorizing individual, hot work operator, and fire watch recognize potential hazards.

Hot work permits should include:

- A warning
- The area of the hot work
- The work to be completed
- A pre-authorization checklist
- The authorizing individual's name
- The date and time
- The amount of time the permit is valid for

1.229 Training

A fire watch must be trained on how to identify the required hot work permit; use gas testing equipment and fire extinguishers; and follow the fire prevention plan.

Fire watches must be trained in the use of fire extinguishing equipment and have it readily available. They must be familiar with how to initiate an alarm in case of a fire.



VRG Controls LLC Fire Watch Program
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1.230 Fire Extinguishers

Fire watches must watch for fires in all exposed areas, try to extinguish them only when they have the appropriate equipment, or sound an alarm.

Available fire extinguishers should be the correct type for the fire class hazards at the job:

- Class A – Solid Combustibles
- Class B – Liquids and Gases
- Class C – Electrical Equipment
- Class D – Flammable Metals
- Class K – Kitchen Fires
- Multi-purpose

If there is a fire, use the PASS method to extinguish the fire:

- **P**ull the pin to ready the extinguisher for discharge.
- **A**im low and point the extinguisher toward the base of the fire.
- **S**queeze the lever to discharge the extinguisher.
- **S**weep back and forth as you move closer to the fire.

Keep the fire extinguisher pointed at the base of the fire until it is out.

Never turn your back on a fire even if it appears to be out.

Portable fire extinguishers should only be used for fires in the incipient stage (fires in the beginning stages).

Fires are not incipient when they are bigger than a trash fire or when they spread beyond their original source. If either of these situations happens, activate the alarm, evacuate the area, notify your supervisor, and leave the firefighting to professionals.



<p style="text-align: center;">VRG Controls LLC Fire Watch Program</p>
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1.231 Personal Protective Equipment (PPE)

While fire watchers are on duty, they must wear the minimum required personal protective equipment (PPE) appropriate for the conditions.

Common PPE for fire watchers includes:

- A hard hat
- Respiratory protection
- Eye and face protection
- Fire-resistant clothing (FRC)
- Protective footwear



VRG Controls LLC Gas Hazards Program

67. GAS HAZARDS PROGRAM

1.232 Purpose and Scope

The purpose of this program is to provide information on an awareness level basis about gas hazards in the workplace.

This program applies to all VRG Controls LLC employees that work with or around flammable gas.

1.233 Gas Hazards

Working with gases can present a variety of hazards depending on the makeup of the gases. These hazards can cause serious injuries and illnesses.

1.234 Training

Gas hazard awareness training shall be provided before initial assignment and annually thereafter.

Training shall be documented and readily available for review.

Employees shall be aware of the site contingency plan provisions including evacuation routes and alarms. Employees shall participate in emergency evacuation drills and practice rescue procedures.

The Gas Hazard Awareness training shall include at a minimum:

- Locations of alarm stations
- Gas monitoring equipment - portable and fixed detection
- Gas alarms
- Gas hazards - characteristics of gases, to include oxygen deficiency, oxygen or nitrogen enrichment, carbon monoxide and hydrogen sulfide at a minimum. Hazard training shall also include any site-specific gases of concern. Training shall include signs and symptoms of overexposure.
- Personnel rescue procedures
- Use and care of self-contained breathing apparatus (SCBA) - including donning and emergency procedures (if applicable)
- Evacuation procedures
- Staging areas



<p style="text-align: center;">VRG Controls LLC Gas Hazards Program</p>

1.235 Gas Detectors

Each employee shall use a portable gas detector as required in all high gas hazard areas.

The gas monitor shall be calibrated per manufacturer's recommendations and contain a current calibration sticker on the monitor providing the date of calibration.

Bump tests are required to be completed at the beginning of each day the monitor is in use, per the site and manufacturer's guidelines, to ensure the monitor is functioning correctly.



VRG Controls LLC Spill Prevention and Response Program

68. SPILL PREVENTION AND RESPONSE PROGRAM

1.236 Purpose and Scope

The purpose of this program is to outline the procedures and training necessary to ensure adequate and efficient control, containment, and management of materials and equipment that may be accidentally released during operations.

This program applies to all VRG Controls LLC employees.

1.237 Spill Prevention and Response

The ultimate goal of a spill prevention and response plan is to prevent or reduce pollutants from operations and to promote good housekeeping practices.

1.238 Best Management Practices

Chemical substances shall be stored in proper containers to minimize the potential for a spill. Whenever possible, chemicals shall be kept in closed containers and stored so they are not exposed to stormwater.

Other best management practices include but are not limited to:

- Material compatibility of the chemicals with the containers and the container with its environment.
- Keeping substances in closed containers and away from potential receiving waters.
- Good housekeeping including neat and orderly storage of chemicals and prompt removal of spillage.

1.239 Inventory

A material inventory identifying hazardous substances and toxic chemicals shall be part of the risk identification and assessment plan needed to determine the potential for spills.

1.240 Spill Response Materials

A proper spill kit shall contain the appropriate supplies for materials that may be spilled. Supplies shall be easily accessible when required, and considerations shall be made for both the type and quantity of materials.

Ensure the availability of adequate spill response supplies by periodic inspection to assess their availability and adjust inventory as necessary.



VRG Controls LLC Spill Prevention and Response Program

Company equipment/supplies that are susceptible to spills/leaks must be monitored through instrumentation/controls (e.g., level sensor, audible/visual alarms), or visually if instrumentation is not feasible/applicable. They must be inspected and maintained as per a defined preventive maintenance program, including predefined periods, methods of inspection, and maintenance. Equipment susceptible to spills/leaks may include machinery oil pan leaks, waste oil storage tank leaks, etc. Supplies susceptible to spills/leaks may include leaks from barrels of chemicals, tipping over of an oil drum, chemical totes, above-ground storage tanks, vacuum trucks, tankers, overfilling of a storage tank, etc.

1.241 Training

Employees shall be instructed on the proper response procedures for spilled materials. The training shall include materials and processes available for use, proper waste disposal, safety hazards, practices for preventing spills, communication procedures, and procedures for responding properly and rapidly to toxic and hazardous materials incidents.

1.242 Reporting

Environmental spills shall be reported to environmental authorities as required. Reporting procedures must be based on type and quantity of materials spilled.

Reporting procedures shall include notification of a discharge to appropriate personnel to initiate immediate action, formal written reports for review and evaluation by management, and notification as required by law to governmental and environmental agencies.