



Matrix Energy Services

SAFETY MANUAL
&
INJURY & ILLNESS PREVENTION PROGRAM

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Policy Statement on Safety

The safety and health of each Matrix Energy Services, Inc. employee is of primary importance to us. As a company, we are committed to maintaining a safe and healthful working environment. Management will provide all necessary safeguards, programs, and equipment required to reduce the potential for accidents and injuries.

To achieve this goal, we have developed and implemented a comprehensive Safety Manual and Injury and Illness Prevention Program (IIPP). This program is designed to prevent workplace accidents, injuries, and illnesses. A complete copy of the program is maintained at our office at 3221 Ramos Circle, Sacramento, California 95827. A copy is also maintained at each independent work site. You may ask to review it at any time. A copy of relevant portions of the program, which are applicable to your job, will also be provided to you. You may also contact Larissa Wesley at (916) 363-9283, if you have any questions or concerns.

It is the intent of Matrix Energy Services, Inc. to comply with all laws relating to occupational safety and health. To accomplish this, we require the active participation and assistance of all employees. The policies and procedures contained in the following manual are mandatory. You should also be constantly aware of conditions in all work areas that can produce injuries or illness. No employee is required to work at a job that he or she knows is not safe. Never hesitate to inform your supervisor of any potentially hazardous situation or condition that is beyond your ability or authority to correct immediately. No employee will be discriminated against for reporting safety concerns to management.

It is the responsibility of each employee to support the company safety program and to perform in a manner that assures his or her own personal safety and the safety of others, including customers, visitors and other trades. To be successful in our endeavor, all employees on every level must adopt proper attitudes towards injury and illness prevention. We must also cooperate in all safety and health matters, not only between management and employees, but also between each employee and his or her respective coworkers. Only through such an effort can any safety program be successful. Our objective is a safety and health program that will reduce the total number of injuries and illnesses to an absolute minimum. Our ultimate goal is zero accidents.

Lillie Mozaffari – President
Norma Jean Bowman – HR Manager
Larissa Wesley – Safety Coordinator

Duties and Responsibilities for Safety

A successful Safety and Injury and Illness Prevention Program can only be achieved and maintained when there is active interest, participation, and accountability at all levels of the organization. To ensure this, Matrix Energy Services, Inc., delegates the following safety duties by job title. Please keep in mind that this is not an all-inclusive list. In some cases employees will need to perform safety duties outside their regular responsibilities to prevent accidents.

Executive management must plan, organize, and administer the program by establishing policy, setting goals and objectives, assigning responsibility, motivating subordinates, and monitoring results. Lillie Mozaffari will support and maintain an ongoing Safety and Injury and Illness Prevention Program through the following:

- Providing clear understanding and direction to all management and employees regarding the importance of safety through the development, implementation, monitoring and revision of policy and procedures.
- Providing financial support for the Injury and Illness Prevention Program through the provision of adequate funds for the purchase of necessary safety materials, safety equipment, proper personal protective equipment, adequate time for employee safety training, and maintenance of tools and equipment.
- Overseeing development, implementation, and maintenance of the IIPP and other required safety programs.
- Maintaining a company commitment to accident prevention by expecting safe conduct on the part of all managers, supervisors, and employees.
- Holding all levels of management and employees accountable for accident prevention and safety.
- Reviewing all accident investigations to determine corrective action.

Managers and Supervisors play a key role in the prevention of accidents on the job. They have direct contact with the employees and know the safety requirements for various jobs. Safety responsibilities for these individuals include:

- Enforce all safety rules and ensure safe work procedures.
- Verify corrective action taken regarding safety hazards and accident investigations.
- Conduct monthly documented safety inspections of work sites to identify and correct unsafe actions and conditions that could cause accidents.
- Act as a leader in company safety policy and set a good example by following all safety rules.
- Become familiar with local, state, and federal safety regulations. The Safety Coordinator is available for assistance.
- Train all new and existing employees in proper safety procedures and the hazards of the job.
- Instruct all employees under their supervision in safe work practices and job safety requirements.
- Hold safety meetings with employees.

- Ensure employee proficiency when assigning work requiring specific knowledge, special operations or equipment.
- Ascertain that all machinery, equipment, and workstations are maintained in safe working condition and operate properly.
- Correct unsafe acts and conditions that could cause accidents.
- Communicate with all employees about safety and accident prevention activities.
- Correct the cause of any accident as soon as possible.
- Ascertain that proper first aid and firefighting equipment is maintained and used when conditions warrant its use.
- Maintain good housekeeping conditions at all times.
- Investigate all injuries and accidents to determine their cause and potential corrective action.
- Ascertain that all injuries involving our employees who require medical attention are properly treated and promptly reported to the office.

Safety Coordinator acts as a safety resource for the company and is responsible for maintaining program records. They will also be our primary person to deal with outside agencies regarding the safety program and its contents. Larissa Wesley, Safety Coordinator, (916) 822-5517, is currently responsible for this role. Additional duties include:

- Coordination of all loss prevention activities as a representative of management. Acting as a consultant to management in the implementation and administration of the Safety Program.
- Develop and implement loss prevention policies and procedures designed to insure compliance with the applicable rules and regulations of all federal, state, and local agencies.
- Review all accident reports to determine cause and preventability.
- Conduct periodic reviews of the program and job sites to evaluate performance, discuss problems and help solve them.
- Consult with representatives of our insurance companies in order that their loss control services will support the Safety Program.
- Review Workers' Compensation Claims. Help supply the insurance carrier with information about injured employees in order to keep loss reserves as low as possible.

Employee is responsible for working safely, both for self-protection and for protection of fellow workers. Employees must also support all company safety efforts. Specific employee safety responsibilities include:

- If you are unsure how to do any task safely, ask your supervisor.
- Read and abide by all requirements of the Safety Manual and Injury and Illness Prevention Program (IIPP).
- Know and follow the Code of Safe Practices and all company safety policies and rules.
- Wear all required personal protective equipment, where appropriate.
- Report all accidents and injuries, no matter how minor, to your supervisor immediately.
- Do not operate any equipment you have not been trained and authorized to use.

- Report any safety hazards or defective equipment immediately to your supervisor.
- Do not remove, tamper with, or defeat any guard, safety device or interlock.
- Never use any equipment with inoperative or missing guards, safety devices, or interlocks.
- Never possess or be under the influence of alcohol or controlled substances while on the premises.
- Never engage in horseplay or fighting.
- Participate in, and actively support, the safety program.

Employee Safety Training

California law requires that employees be trained in the safe methods of performing their job. Matrix Energy Services, Inc. is committed to instructing all employees in safe and healthful work practices. Awareness of potential hazards, as well as knowledge of how to control them, is critical to maintaining a safe and healthful work environment and preventing injuries. To achieve this goal, we will provide training to each employee on general safety issues and safety procedures specific to that employee's work assignment.

Every new employee will be given instruction by their Supervisor in the general safety requirements of their job. A copy of our Code of Safe Practices shall also be provided to each employee.

Managers, Supervisors, and employees will be trained at least once per year on various accident prevention topics.

Training provides the following benefits:

- Makes employees aware of job hazards;
- Teaches employees to perform jobs safely;
- Promotes two-way communication;
- Encourages safety suggestions;
- Creates interest in the safety program; and
- Fulfills Cal/OSHA requirements.

Employee training will be provided at the following times:

- All new employees will receive a safety orientation their first day on the job.
- All new employees will be given a copy of the Code of Safe Practices and required to read and sign for it.
- All employees given a new job assignment for which training has not been previously provided will be trained before beginning the new assignment.
- Whenever new substances, processes, procedures, or equipment that represent a new hazard are introduced into the workplace.
- Whenever Matrix Energy Services, Inc. is made aware of a new or previously unrecognized hazard.
- Whenever management believes that additional training is necessary.
- After all serious accidents.
- When employees are not following safe work rules or procedures.

Training topics will include, but not be limited to:

- Employee's safety responsibility;
- General safety rules;
- Code of Safe Practices;

- Safe job procedures;
- Ergonomics;
- Use of hazardous materials;
- Use of equipment;
- Emergency procedures;
- Safe lifting and material handling practices; and
- Contents of safety program.

Documentation of Training

All training will be documented on the appropriate form.

Employee Safety Contact Form New Employee Safety Orientation

The following training method will be used. Actual demonstrations of the proper way to perform a task are very helpful in most cases.

- **Tell them** how to do the job safely;
- **Show them** how to do the job safely;
- **Have them tell you** how to do the job safely;
- **Have them show you** how to do the job safely; and
- **Follow up** to ensure they are still performing the job safely.

New Employee Safety Orientation

The Supervisor will verbally cover the following items with each new employee on the first day of their employment.

Employee name _____ Start date _____

Work site _____ Position _____

Instruction has been received in the following areas.

- 1. Code of Safe Practices.*
- 2. Hazard Communication (chemicals) Employee Training Handbook.*
- 3. Driving Safety Rules.*
- 4. Safety rule enforcement procedures.
- 5. Necessity of reporting ALL injuries, no matter how minor, IMMEDIATELY.
- 6. Proper method of reporting safety hazards.
- 7. Emergency procedures and First Aid.
- 8. Proper work clothing & required personal protective equipment.
- 9. List all special equipment, such as lifts, employee is trained and authorized to use.
- 10. Emergency Exits and Fire Extinguishers.

* Give a copy of these items to the employee.

I agree to abide by all company safety polices and the Code of Safe Practices. I also understand that failure to do so may result in disciplinary action and possible termination.

Signed _____ Date _____
Employee

Signed _____ Date _____
Supervisor

Safety Communication

This section establishes procedures designed to develop and maintain employee involvement and interest in the Safety Manual and IIPP. These activities will also ensure effective communication between management and employees on safety related issues that is of prime importance to Matrix Energy Services, Inc. The following are some of the safety communication methods that may be used:

- Scheduled safety meetings with employees that encourage participation and open, two-way communication;
- New employee safety orientation and provision of the Code of Safe Practices;
- Provision and maintenance of employee bulletin boards discussing safety issues, accidents, and general safety suggestions;
- Written communications from management or the Safety Coordinator, including emails and postings; and
- Anonymous safety suggestion program.

Employees will be kept advised of highlights and changes relating to the safety program. Management shall relay changes and improvements regarding the safety program to employees, as appropriate. Employees will be involved in future developments and safety activities by requesting their opinions and comments, as necessary.

All employee-initiated safety related suggestions shall be properly answered, either verbally or in writing, by the appropriate level of management. Unresolved issues shall be relayed to the VP of Operations.

All employees are encouraged to bring any safety concerns they may have to the attention of management. Matrix Energy Services, Inc. will not retaliate against any employee for raising safety issues or concerns.

Matrix Energy Services, Inc. also has a system of anonymous notification whereby employees who wish to inform the company of workplace hazards without identifying themselves may do so by phoning or sending written notification to the following address:

Larissa Wesley – Safety Coordinator
3221 Ramos Circle
Sacramento, CA 95827
(916) 822-5517

Enforcement of Safety Policies

The compliance of all employees with Matrix Energy Services, Inc.'s Safety Manual and IIPP is mandatory and shall be considered a condition of employment.

The following programs will be utilized to ensure employee compliance with the safety program and all safety rules.

- Training programs;
- Retraining and corrective action;
- Disciplinary action; and
- Optional safety incentive programs.

Training Programs

The importance of safe work practices and the consequences of failing to abide by safety rules will be covered in the New Employee Safety Orientation and safety meetings. This will help ensure that all employees understand and abide by Matrix Energy Services, Inc. safety policies.

Retraining and Corrective Action

Employees that are observed performing unsafe acts or not following proper procedures or rules will be retrained by their supervisor. A Safety Contact Report may be completed by the supervisor to document the training. If multiple employees are involved, additional safety meetings will be held.

Safety Incentive Programs

Although strict adherence to safety policies and procedures is required of all employees, the company may choose to periodically provide recognition of safety-conscious employees and job sites without accidents through a safety incentive program.

Disciplinary Action:

The failure of an employee to adhere to safety policies and procedures established by Matrix Energy Services, Inc. can have a serious impact on everyone concerned. An unsafe act can threaten not only the health and well-being of the employee committing the unsafe act, but can also affect the safety of his/her coworkers and customers. Accordingly, any employee who violates any of the company's safety policies will be subject to disciplinary action.

Note: Failure to promptly report any on-the-job accident or injury on the same day as occurrence, is considered a serious violation of the Company's Code of Safe Practices. Any employee who fails to immediately report a work-related accident or injury, no matter how minor, shall be subject to disciplinary action.

Employees will be disciplined for infractions of safety rules and unsafe work practices that are observed, not just those that result in an injury. Often, when an injury occurs, the accident investigation will reveal that the injury was caused because the employee violated an established safety rule and/or safe work practice(s). In any disciplinary action, the supervisor should be cautious that discipline is given to the employee for safety violations, and not simply because the

employee was injured on the job or filed a Workers' Compensation claim. No disciplinary action should be taken by managers or supervisors without prior permission and involvement with Human Resources.

Violations of safety rules and the Code of Safe Practices are to be considered equal to violations of other company policy. Discipline for safety violations will be administered in a manner that is consistent with Matrix Energy Services, Inc.'s system of progressive discipline. If, after training, violations occur, disciplinary action will be taken as follows:

- Oral warning. Document it, including date and facts on the Safety Contact Report form. Add any pertinent witness statements. Restate the policy and correct practice(s).
- Written warning. Retrain as to correct procedure/practice.
- Written warning with suspension.
- Termination.

As in all disciplinary actions, each situation is to be carefully evaluated and investigated. The particular step taken in the disciplinary process will depend on the severity of the violation, employee history, and regard to safety. Managers and supervisors should consult with Human Resources if there is any question about whether or not disciplinary action is justified. Employees may be terminated immediately for willful or extremely serious violations.

Hazard Identification and Evaluation

To assist in the identification and correction of hazards, Matrix Energy Services, Inc. has developed the following procedures. These procedures are representative only and are not exhaustive of all the measures and methods that will be implemented to guard against injury from recognized and potential hazards in the workplace. As new hazards are identified or improved work procedures developed, they will be promptly incorporated into our Safety Manual. The following methods will be utilized to identify hazards in the workplace:

- Loss analysis of accident trends;
- Accident investigation;
- Employee observation;
- Employee suggestions;
- Regulatory requirements for our industry;
- Outside agencies such as the fire department and insurance carriers; and
- Periodic safety inspections.

Loss Analysis

Periodic loss analyses will be conducted by Safety Coordinator. These will help identify areas of concern and potential job hazards. The results of these analyses will be communicated to management, supervision, and employees through safety meetings and other appropriate means.

Accident Investigations

All accidents and injuries will be investigated in accordance with the guidelines contained in this program. Accident investigations will focus on all causal factors and corrective action including the identification and correction of hazards that may have contributed to the accident.

Employee Observation

Supervisors shall observe employees for unsafe actions and take corrective action as necessary.

Employee Suggestions

Employees are required to report any hazard they observe to their supervisor. No employee of Matrix Energy Services, Inc. is to ever be disciplined or discharged for reporting any workplace hazard or unsafe condition. However, employees who do NOT report potential hazards or unsafe conditions that they are aware of will be subject to disciplinary action.

Regulatory Requirements

All industries are subject to government regulations relating to safety. Many of these regulations are specific to our type of business. Copies of pertinent regulations can be obtained from the Safety Coordinator.

Outside Agencies

Several organizations will assist us in identifying hazards in our workplace. These include insurance carrier safety and health consultants, private industry consultants, the fire department, and Cal/OSHA Consultation.

Scheduled Safety Inspections

Scheduled safety inspections ensure that physical and mechanical hazards are under control and identify situations that may become potentially hazardous. Inspections shall include a review of the work habits of employees in all work areas. These inspections will be conducted by the Supervisor, Manager, Safety Coordinator or other designated individual depending on the work site.

Scheduled safety inspections will be conducted:

- When new substances, process, procedures or equipment are used;
- When new or previously unrecognized hazards are identified;
- Periodically by the Supervisor; and
- Periodically by the Safety Coordinator.

These inspections will focus on both unsafe employee actions as well as unsafe conditions. The following is a partial list of items to be checked.

- The proper use, condition, maintenance and grounding of all electrically operated equipment;
- The proper use, condition, and maintenance of safeguards for all power-driven equipment;
- Compliance with the Code of Safe Practices;
- Housekeeping and personal protective equipment;
- Hazardous materials;
- Proper material storage; and
- Provision of first aid equipment and emergency medical services.

Any and all hazards identified will be corrected as soon as practical in accordance with the Matrix Energy Services, Inc. hazard correction policy.

If imminent or life threatening hazards are identified, which cannot be immediately corrected, all employees must be removed from the area, except those with special training required to correct the hazard, who will be provided necessary safeguards.

Documentation of Inspections

Safety inspections will be documented to include the following:

- Date on which the inspection was performed;
- The name and title of person who performed the inspection;
- Any hazardous conditions noted or discovered and the steps or procedures taken to correct them; and
- Signature of the person who performed the inspection.

One copy of the completed form should be sent to the Safety Coordinator. All reports shall be kept on file for a minimum of two years.

Hazard Correction

The following procedures will be used to evaluate, prioritize, and correct identified safety hazards. Hazards will be corrected in order of priority: the most serious hazards will be corrected first.

Hazard Evaluation

Factors that will be considered when evaluating hazards include:

- Potential severity - The potential for serious injury, illness or fatality;
- Likelihood of exposure - The probability of the employee coming into contact with the hazard;
- Frequency of exposure - How often employees come into contact with the hazard;
- Number of employees exposed;
- Possible corrective actions - What can be done to minimize or eliminate the hazard; and
- Time necessary to correct - The time necessary to minimize or eliminate the hazard.

Techniques for Correcting Hazards

- Engineering Controls: Could include machine guarding, ventilation, noise reduction at the source, and provision of material handling equipment. These are the first and preferred methods of control.
- Administrative Controls: The next most desirable method would include rotation of employees or limiting exposure time.
- Personal Protective Equipment: Includes back support belts, hearing protection, respirators and safety glasses. These are often the least effective controls for hazards and should be relied upon only when other controls are impractical.

Documentation of Corrective Action

All corrective action taken to mitigate hazards should be documented. Depending on the circumstances, one of the following forms should be used:

- Safety Contact Report;
- Safety Meeting Report;
- Memo or letter; or
- Safety inspection form.

All hazards noted on safety inspections will be rechecked on each subsequent inspection and notations made as to their status.

Blood Borne Exposure Control Plan (ECP)

Matrix Energy Services is committed to providing a safe and healthful work environment for our entire staff. In pursuit of this goal, the following exposure control plan (ECP) is provided to eliminate or minimize occupational exposure to blood borne pathogens or other potentially infectious materials in accordance with OSHA standard 29 CFR 1910.1030, "Occupational Exposure to Blood borne Pathogens." Universal precautions shall be observed.

The ECP is a key document to assist our organization in implementing and ensuring compliance with the standard, thereby protecting our employees. This ECP includes:

- Determination of employee exposure;
- Implementation of various methods of exposure control, including:
 - Universal precautions
 - Engineering and work practice controls
 - Personal protective equipment
 - Housekeeping
- Hepatitis B vaccination;
- Post-exposure evaluation and follow-up;
- Communication of hazards to employees and training;
- Recordkeeping;
- Procedures for evaluating circumstances surrounding exposure incidents; and
- Implementation methods for these elements of the standard are discussed in the subsequent pages of this ECP.

Program Administration

Our Safety Administrator is responsible for implementation of the ECP. (Name of responsible person or department) will maintain, review, and update the ECP at least annually, and whenever necessary to include new or modified tasks and procedures. Contact location/phone number: 916-822-5534.

Those employees who are determined to have occupational exposure to blood or other potentially infectious materials (OPIM) must comply with the procedures and work practices outlined in this ECP.

Our Safety Administrator will provide and maintain all necessary personal protective equipment (PPE), engineering controls (e.g., sharps containers), labels, and red bags as required by the standard. He will ensure that adequate supplies of the aforementioned equipment are available in the appropriate sizes.

Our Safety Administrator be responsible for ensuring that all medical actions required by the standard are performed and that appropriate employee health and OSHA records are maintained.

Our Safety Administrator will be responsible for training, documentation of training, and making the written ECP available to employees, OSHA, and NIOSH representatives.

Employee Exposure Determination

NOTE: Part-time, temporary, contract and per diem employees are covered by the blood borne pathogens standard.

Methods of Implementation and Control

All employees will utilize universal precautions. Exposure Control Plan Employees covered by the blood borne pathogens standard receive an explanation of this ECP during their initial training session. It will also be reviewed in their annual refresher training. All employees can review this plan at any time during their work shifts by contacting Safety Administrator or the Human Resources Department. If requested, we will provide an employee with a copy of the ECP free of charge and within 15 days of the request.

Our Safety Administrator is responsible for reviewing and updating the ECP annually or more frequently if necessary to reflect any new or modified tasks and procedures that affect occupational exposure and to reflect new or revised employee positions with occupational exposure.

Engineering Controls and Work Practices Engineering controls and work practice controls will be used to prevent or minimize exposure to blood borne pathogens. The specific engineering controls and work practice controls used are listed below:

- For example: non-glass capillary tubes, SESIPs, needleless systems.
- Sharps disposal containers are inspected and maintained or replaced by (Name of responsible person or department) every (list frequency) or whenever necessary to prevent overfilling.
- This facility identifies the need for changes in engineering controls and work practices through reviewing OSHA records and in discussing matters with workers.
- Personal Protective Equipment (PPE) PPE is provided to our employees at no cost to them. Training in the use of the appropriate PPE for specific tasks or procedures is provided by Safety Administrator.
- A Blood Borne Pathogens Spill Clean-Up Kit is to be used whenever there is blood spillage that needs to be cleaned up. Erik will insure that a kit is available at all locations and at all job sites.

All employees using PPE must observe the following precautions:

- Wash hands immediately or as soon as feasible after removing gloves or other PPE.
- Cleaning of equipment or surfaces after contact with blood or other infectious material should be completed using the instructions on the Blood Borne Pathogens Spill Clean-Up Kit.
- Remove PPE after it becomes contaminated and before leaving the work area.
- Used PPE may be disposed of according to the instructions on the Blood Borne Pathogens Spill Clean-Up Kit.
- Wear appropriate gloves when it is reasonably anticipated that there may be hand contact with blood or OPIM, and when handling or touching contaminated items or surfaces; replace gloves if torn, punctured or contaminated, or if their ability to function as a barrier is compromised.

- Utility gloves may be decontaminated for reuse if their integrity is not compromised; discard utility gloves if they show signs of cracking, peeling, tearing, puncturing, or deterioration.
- Never wash or decontaminate disposable gloves for reuse.
- Wear appropriate face and eye protection when splashes, sprays, spatters, or droplets of blood or OPIM pose a hazard to the eye, nose, or mouth.
- Remove immediately or as soon as feasible any garment contaminated by blood or OPIM, in such a way as to avoid contact with the outer surface.

The procedure for handling used PPE is as follows:

- May refer to specific procedure by title or number and last date of review; include how and where to decontaminate face shields, eye protection, resuscitation equipment.
- Housekeeping Regulated waste is placed in containers which are closable, constructed to contain all contents and prevent leakage, appropriately labeled or color-coded (see the following section “Labels”), and closed prior to removal to prevent spillage or protrusion of contents during handling.

The procedure for handling sharps disposal containers is:

- May refer to specific procedure by title or number and last date of review.

The procedure for handling other regulated wastes:

- Bins and pails are cleaned and decontaminated as soon as feasible after visible contamination.
- Broken glassware that may be contaminated is only picked up using mechanical means, such as a brush and dustpan.
- Contaminated articles will be laundered by this company.
- Laundering will be performed by manager or supervisor of the company.

The following laundering requirements must be met:

- Handle contaminated laundry as little as possible, with minimal agitation
- Place wet contaminated laundry in leak-proof, labeled or color-coded containers before transport. Use (specify either red bags or bags marked with the biohazard symbol) for this purpose.
- Wear gloves when handling and/or sorting contaminated laundry:
- The following labeling methods are used in this facility:
- Equipment to be Labeled Label Type (size, color)
- Specimens, contaminated laundry, etc. (red bag, biohazard label)

Management appointee is responsible for ensuring that warning labels are affixed or red bags are used as required if regulated waste or contaminated equipment is brought into the facility.

Employees are to notify Safety Administrator if they discover regulated waste containers, refrigerators containing blood or OPIM, contaminated equipment, etc., without proper labels.

Hepatitis B Vaccination

Our Safety Administrator will provide training to employees on hepatitis B vaccinations, addressing safety, benefits, efficacy, methods of administration, and availability.

The hepatitis B vaccination series is available at no cost after initial employee training and within 10 days of initial assignment to all employees identified in the exposure determination section of this plan. Vaccination is encouraged unless: 1) documentation exists that the employee has previously received the series; 2) antibody testing reveals that the employee is immune; or 3) medical evaluation shows that vaccination is contraindicated.

However, if an employee declines the vaccination, the employee must sign a declination form. Employees who decline may request and obtain the vaccination at a later date at no cost. Documentation of refusal of the vaccination is kept at Corporate Headquarters. Vaccination will be provided by an appointed healthcare professional.

Following the medical evaluation, a copy of the health care professional's written opinion will be obtained and provided to the employee within 15 days of the completion of the evaluation. It will be limited to whether the employee requires the hepatitis vaccine and whether the vaccine was administered.

Post-Exposure Evaluation and Follow-Up

Should an exposure incident occur, contact Safety Administrator at the following number 916-822-5534.

An immediately available confidential medical evaluation and follow-up will be conducted by appointed health care professional. Following initial first aid (clean the wound, flush eyes or other mucous membrane, etc.), the following activities will be performed:

- Document the routes of exposure and how the exposure occurred.
- Identify and document the source individual (unless the employer can establish that identification is infeasible or prohibited by state or local law).
- Obtain consent and make arrangements to have the source individual tested as soon as possible to determine HIV, HCV, and HBV infectivity; document that the source individual's test results were conveyed to the employee's health care provider.
- If the source individual is already known to be HIV, HCV and/or HBV positive, new testing need not be performed.
- Assure that the exposed employee is provided with the source individual's test results and with information about applicable disclosure laws and regulations concerning the identity and infectious status of the source individual (e.g., laws protecting confidentiality).
- After obtaining consent, collect exposed employee's blood as soon as feasible after exposure incident, and test blood for HBV and HIV serological status
- If the employee does not give consent for HIV serological testing during collection of blood for baseline testing, preserve the baseline blood sample for at least 90 days; if the exposed

employee elects to have the baseline sample tested during this waiting period, perform testing as soon as feasible.

Administration of Post-Exposure Evaluation and Follow-Up

Safety Administrator ensures that health care professional(s) responsible for employee's hepatitis B vaccination and post-exposure evaluation and follow-up are given a copy of OSHA's blood borne pathogens standard.

Safety Administrator ensures that the health care professional evaluating an employee after an exposure incident receives the following:

- Description of the employee's job duties relevant to the exposure incident;
- Route(s) of exposure;
- Circumstances of exposure;
- If possible, results of the source individual's blood test; and
- Relevant employee medical records, including vaccination status,

Our Safety Administrator provides the employee with a copy of the evaluating health care professional's written opinion within 15 days after completion of the evaluation.

Procedures for Evaluating the Circumstances Surrounding an Exposure Incident

Our Safety Administrator will review the circumstances of all exposure incidents to determine:

- If engineering controls in use at the time;
- If work practices were followed;
- If a description of the device being used was given (including type and brand);
- If protective equipment or clothing was used at the time of the exposure incident (gloves, eye shields, etc.);
- Where location of the incident (O.R., E.R., patient room, etc.);
- What procedure being performed when the incident occurred; and
- If employee completed training.

If revisions to this ECP are necessary Safety Administrator will ensure that appropriate changes are made.

Employee Training

All employees who have occupational exposure to blood borne pathogens receive initial and annual training conducted by our Safety Administrator for Matrix Energy Services, Inc.

All employees who have occupational exposure to blood borne pathogens receive training on the epidemiology, symptoms, and transmission of blood borne pathogen diseases. In addition, the training program covers, at a minimum, the following elements:

- A copy and explanation of the OSHA blood borne pathogen standard;
- An explanation of our ECP and how to obtain a copy;

- An explanation of methods to recognize tasks and other activities that may involve exposure to blood and OPIM, including what constitutes an exposure incident;
- An explanation of the use and limitations of engineering controls, work practices, and PPE;
- An explanation of the types, uses, location, removal, handling, decontamination, and disposal of PPE;
- An explanation of the basis for PPE selection;
- Information on the hepatitis B vaccine, including information on its efficacy, safety, method of administration, the benefits of being vaccinated, and that the vaccine will be offered free of charge;
- Information on the appropriate actions to take and persons to contact in an emergency involving blood or OPIM;
- 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-exposure evaluation and follow-up that the employer is required to provide for the employee following an exposure incident;
- An explanation of the signs and labels and/or color coding required by the standard and used at this facility;
- An opportunity for interactive questions and answers with the person conducting the training session;
- Handwashing facilities shall be readily available at all work locations or antiseptic solutions/ towelettes will be available for use; and
- Training materials are available on our company intranet.

Recordkeeping

Training Records Training records are completed for each employee upon completion of training. These documents will be kept for at least three years in our Sacramento Office.

The training records include:

- The dates of the training sessions;
- The contents or a summary of the training sessions;
- The names and qualifications of persons conducting the training;
- The names and job titles of all persons attending the training sessions; and
- Employee training records are provided upon request to the employee or the employee's authorized representative within 15 working days. Such requests should be addressed to (Name of responsible person or department).

Medical records are maintained for each employee with occupational exposure in accordance with 29 CFR 1910.1020, "Access to Employee Exposure and Medical Records." Our Safety Administrator is responsible for maintenance of the required medical records. These confidential records are kept in Sacramento Office for at least the duration of employment plus 30 years.

Employee medical records are provided upon request of the employee or to anyone having written consent of the employee within 15 working days. Such requests should be sent to our Safety Administrator.

OSHA Recordkeeping

An exposure incident is evaluated to determine if the case meets OSHA's Recordkeeping Requirements (29 CFR 1904). This determination and the recording activities are done by our Safety Administrator.

Sharps Injury Log

In addition to the 1904 Recordkeeping Requirements, all percutaneous injuries from contaminated sharps are also recorded in a Sharps Injury Log. All incidences must include at least:

- Date of the injury;
- Type and brand of the device involved (syringe, suture needle);
- Department or work area where the incident occurred;
- Explanation of how the incident occurred; and
- This log is reviewed as part of the annual program evaluation and maintained for at least five years following the end of the calendar year covered. If a copy is requested by anyone, it must have any personal identifiers removed from the report.

Hepatitis B Vaccine Declination (Mandatory)

I understand that due to my occupational exposure to blood or other potentially infectious materials I may be at risk of acquiring hepatitis B virus (HBV) infection. I have been given the opportunity to be vaccinated with hepatitis B vaccine, at no charge to myself. However, I decline hepatitis B vaccination at this time. I understand that by declining this vaccine, I continue to be at risk of acquiring hepatitis B, a serious disease. If in the future I continue to have occupational exposure to blood or other potentially infectious materials and I want to be vaccinated with hepatitis B vaccine, I can receive the vaccination series at no charge to me.

Signed: (Employee Name) _____

Date: _____

Accident Investigation

The Supervisor, Manager, or other designated individual will investigate all work-related accidents in a timely manner. This includes minor incidents and “near accidents,” as well as serious injuries. An accident is defined as any unexpected occurrence that results in injury to personnel, damage to equipment, facilities, or material, or interruption of normal operations.

Responsibility for Accident Investigation

Immediately upon being notified of an accident, the Supervisor, Manager, or other designated individual shall conduct an investigation. The purpose of the investigation is to determine the cause of the accident and corrective action to prevent future reoccurrence; not to fix blame or find fault. An unbiased approach is necessary in order to obtain objective findings.

The Purpose of Accident Investigations:

- To prevent or decrease the likelihood of similar accidents;
- To identify and correct unsafe work practices and physical hazards. Accidents are often caused by a combination of these two factors; and
- To identify training needs. This makes training more effective by focusing on factors that are most likely to cause accidents.

What Types of Incidents Do We Investigate?

- Fatalities;
- Serious injuries;
- Minor injuries;
- Property damage; and
- Near misses.

Procedures for Investigation of Accidents

Immediately upon being notified of an accident the Supervisor, Manager, or other designated individual will:

- Visit the accident scene as soon as possible while facts and evidence are still fresh, and before witnesses forget important details; and to make sure hazardous conditions to which other employees or customers could be exposed are corrected or have been removed.
- Provide for needed first aid or medical services for the injured employee(s).
- If possible, interview the injured worker at the scene of the accident and verbally walk him or her through a re-enactment. All interviews should be conducted as privately as possible. Interview all witnesses individually and talk with anyone who has knowledge of the accident, even if they did not actually witness it.
- Report the accident to the Safety Coordinator at (916) 363-9283. Accidents will be reported by the office to the insurance carrier within 24 hours. All serious accidents will be reported to the carrier as soon as possible.
- Consider taking signed statements in cases where facts are unclear or there is an element of controversy.

- Thoroughly investigate the accident to identify all accident *causes* and *contributing factors*. Document details graphically. Use sketches, diagrams and photos as needed. Take measurements when appropriate.
- All accidents involving death, disfigurement, amputation, loss of consciousness, or hospitalization for more than 24 hours must be reported to Cal/OSHA immediately by way of human resources or senior management.
- Focus on causes and hazards. Develop an analysis of what happened, how it happened, and how it could have been prevented. Determine what caused the accident itself, not just the injury.
- Every investigation must also include an action plan. How can such accidents be prevented in the future?
- In the event a third party or defective product contributed to the accident, save any evidence as it could be critical to the recovery of claim costs.

Accurate & Prompt Investigations

- Ensures information is available;
- Causes can be quickly corrected;
- Helps identify all contributing factors;
- Reflects management concern; and
- Reduces chance of recurrence.

Investigation Tips

- Avoid placing blame;
- Document with photos and diagrams, if needed;
- Be objective, get the facts;
- Reconstruct the event; and
- Use open-ended questions.

Questions to Ask

When investigating accidents, open-ended questions such as who? what? when? where? why? and how? will provide more information than closed-ended questions such as “Were you wearing gloves?”

Examples include:

- How did it happen?
- Why did it happen?
- How could it have been prevented?
- Who was involved?
- Who witnessed the incident?
- Where were the witnesses at the time of the incident?
- What was the injured worker doing?
- What was the employee working on?

- When did it happen?
- When was the accident reported?
- Where did it happen?
- Why was the employee assigned to do the job?

The single most important question that must be answered as the result of any investigation is:

“What do you recommend be done (or have you done) to prevent this type of incident from recurring?”

Once the Accident Investigation is Completed

- Take or recommend corrective action;
- Document corrective action;
- Management and the Safety Coordinator will review the results of all investigations;
- Consider safety program modifications; and
- Information obtained through accident investigations can be used to update and improve our current program.

Program Records

The Safety Coordinator and Human Resources will ensure the maintenance of all Safety Manual and IIPP records for the listed periods, including:

- | | |
|------------------------------------------|----------------------|
| 1. New Employee Safety Orientation forms | length of employment |
| 2. Code of Safe Practices Receipt | length of employment |
| 3. Disciplinary actions for safety | 1 year |
| 4. Safety inspections | 2 years |
| 5. Safety meeting reports | 2 years |
| 6. Safety Contact Reports | 2 years |
| 7. Accident investigations | 5 years |
| 8. Cal/OSHA log of injuries | 5 years |
| 9. Inventory of Hazardous Materials | (if any) forever |
| 10. Employee exposure or medical records | forever |

Records are available for review at the Matrix Energy Services, Inc. headquarters, located at 3221 Ramos Circle, Sacramento, CA 95827. The company phone number is (916) 363-9283.

Emergency Medical Services and First Aid

Matrix Energy Services, Inc. will ensure the availability of emergency medical services for its employees at all times. We will also ensure the availability of a suitable number of appropriately trained persons to render first aid. The Safety Coordinator will maintain a list of trained individuals and take steps to provide training for those who desire it.

First-Aid Kits

Every work site shall have access to at least one first aid kit in a weatherproof container. The first aid kit will be inspected regularly to ensure that it is well stocked, in sanitary condition, and any used items are promptly replaced. The contents of the first aid kit shall be arranged to be quickly found and remain sanitary. First aid dressings shall be sterile and in individually sealed packages. The following minimum first aid supplies shall be kept:

Type of Supply Required by Number of Employees				
Dressings in adequate quantities consisting of:	1-5	6-15	16-200	200+
Adhesive dressings	X	X	X	X
Adhesive tape rolls, 1-inch wide	X	X	X	X
Eye dressing packet	X	X	X	X
1-inch gauze bandage roll or compress		X	X	X
2-inch gauze bandage roll or compress	X	X	X	X
4-inch gauze bandage roll or compress		X	X	X
Sterile gauze pads, 2-inch square	X	X	X	X
Sterile gauze pads, 4-inch square	X	X	X	X
Sterile surgical pads suitable for pressure dressings			X	X
Triangular bandages	X	X	X	X
Safety pins	X	X	X	X
Tweezers and scissors	X	X	X	X
Cotton-tipped applicators*			X	X
Forceps*			X	X
Emesis basin*			X	X
Flashlight*			X	X
Magnifying glass*			X	X
Portable oxygen and its breathing equipment*				X
Tongue depressors*				X
Appropriate record forms*	X	X	X	X
First-aid textbook, manual or equivalent*	X	X	X	X

*To be readily available but not necessarily within the first-aid kit.

Drugs, antiseptics, eye irrigation solutions, inhalants, medicines, or proprietary preparations shall not be included in Matrix Energy Services, Inc. first aid kits unless specifically approved, in writing, by an employer-authorized, licensed physician. Other supplies and equipment, if provided, shall be in accordance with the documented recommendations of an employer-authorized licensed physician upon consideration of the extent and type of emergency care to be given based upon the

anticipated incidence and nature of injuries and illnesses and availability of transportation to medical care.

First Aid

The designated first aid person on each site will be available at all times to render appropriate first aid for injuries and illnesses. Proper equipment for the prompt transportation of the injured or ill person to a physician or hospital where emergency care is provided, or an effective communication system for contacting hospitals or other emergency medical facilities, physicians, ambulance and fire services, shall also be provided. The telephone numbers of the following emergency services in the area shall be posted near the job telephone, or otherwise made available to the employees where no job site telephone exists:

- A company authorized physician or medical clinic, and at least one alternate if available;
- Hospitals;
- Ambulance services; and
- Fire protection services.

Prior to the commencement of work at any site, the Supervisor or Manager shall locate the nearest preferred medical facility and establish that transportation or communication methods are available in the event of an employee injury.

Each employee shall be informed of the procedures to follow in case of injury or illness through our new employee orientation program, Code of Safe Practices, and safety meetings.

Where the eyes or body of any person may be exposed to injurious or corrosive materials, suitable facilities for drenching the body or flushing the eyes with clean water shall be conspicuously and readily accessible.

Accident Procedures

These procedures are to be followed in the event of an employee injury in the course of employment.

- **For severe accidents call 911 and request the Paramedics.**
- **Employees must report all work related injuries to their Supervisor immediately; even if they do not feel that it requires medical attention.** Failure to do so may result in a delay of Workers' Compensation benefits and disciplinary action.
- The Supervisor, employee, and first aid person, should determine whether or not outside medical attention is needed. When uncertainty exists on the part of any individual, the employee should be sent for professional medical care.
- If medical attention is not desired or the employee refuses treatment, you must still fill out the Matrix Energy Services, Inc. Accident Report in case complications arise later.
- In all cases, if the employee cannot transport himself or herself for any reason, transportation should be provided.
- In the event of a serious accident involving hospitalization for more than 24 hours, amputation, permanent disfigurement, loss of consciousness, or death, phone contact should be made with the office at (916) 363-9283. Contact must also be made with the nearest Cal/OSHA office.

Hazardous Materials and Chemicals Hazard Communication Program

Introduction

It is the policy of Matrix Energy Services, Inc. that the first consideration of work shall be the protection of the safety and health of all employees. We have developed this Hazard Communication Program to ensure that all employees receive adequate information about the possible hazards that may result from the various materials used in our operations. This Hazard Communication Program will be monitored by the Safety Coordinator who will be responsible for ensuring that all facets of the program are carried out, and that the program is effective.

Our program consists of the following elements:

- Hazardous material inventory;
- Collection and maintenance of Material Safety Data Sheets;
- Container labeling; and
- Employee training.

The following items are not required to be included in the program and are therefore omitted:

- Foods, drugs, cosmetics or tobacco;
- Untreated wood products;
- Hazardous waste; and
- Consumer products packaged for sale to and use by the general public, provided that our exposure is not significantly greater than typical consumer exposure.

Hazardous Material Inventory

The Safety Coordinator maintains a list of all hazardous materials used in our operations. This list contains the name of the product, the type of product (solvent, adhesive etc.), and the name and address of the manufacturer.

Material Safety Data Sheets (MSDS)

Copies of MSDS for all hazardous substances to which our employees may be exposed will be kept in a binder in the office at 3221 Ramos Circle, Sacramento, CA 95827. These MSDS are available to all employees, at all times, upon request. Copies of the most commonly used products will also be kept by the Supervisor at the work site.

The Safety Coordinator will be responsible for reviewing incoming MSDS for new and significant health/safety information. They will ensure that any new information is passed on to the affected employees.

The Safety Coordinator will also review all incoming MSDS for completeness. If an MSDS is missing or obviously incomplete, a new MSDS will be requested from the manufacturer. CAL/OSHA will be notified if a complete MSDS is not received and the manufacturer will not supply one.

New materials will not be introduced into the shop or field until a MSDS has been received. The purchasing department will make it an ongoing part of their function to obtain MSDS for all new materials when they are first ordered.

Container Labeling

No container of hazardous substances will be used unless the container is correctly labeled and the label is legible.

All chemicals in cans, bags, drums, pails, etc., will be checked by the receiving department to ensure the manufacturer's label is intact, is legible, and has not been damaged in any manner during shipment. Any containers found to have damaged labels will be held until a new label has been installed. New labels will be obtained from the manufacturer. The label must contain:

- The chemical name of the contents;
- The appropriate hazard warnings; and
- The name and address of the manufacturer.

All secondary containers will be labeled as to their contents with a reference to the original label.

Employee Information and Training

All employees will be provided information and training on the following items through the Matrix Energy Services, Inc. safety training program and prior to starting work with hazardous substances:

- An overview of the requirements of the Hazard Communication Standard, including their rights under this regulation.
- Information regarding the use of hazardous substances in their specific work areas.
- The location and availability of the written hazard communication program. The program will be available from the Supervisor and Safety Coordinator.
- The physical and health hazards of the hazardous substances in use.
- Methods and observation techniques used to determine the presence or release of hazardous substances in the work area.
- The controls, work practices and personal protective equipment that are available for protection against possible exposure.
- Emergency and first aid procedures to follow if employees are exposed to hazardous substances.
- How to read labels and material safety data sheets to obtain the appropriate hazard information.

Hazardous Non-Routine Tasks

Infrequently, employees may be required to perform hazardous non-routine tasks. Prior to starting this work, each involved employee will be given information by his/her supervisor about hazards to which they may be exposed during such activity. This information will include:

- The specific hazards;
- Protective/safety measures which must be utilized; and

- The measures the company has taken to lessen the hazards, including special ventilation, respirators, the presence of another employee, emergency procedures, etc.

Informing Outside Contractors and Vendors

To ensure that outside contractors are not exposed to our hazardous materials, and to ensure the safety of the contractor's employees, it will be the responsibility of the Supervisor to provide outside contractors the following information:

- The hazardous substances under our control that they may be exposed to while at the work site; and
- The precautions the contractor's employees must take to lessen the possibility of exposure.

We will obtain from outside contractors and vendors the name of any hazardous substances the contractor's employees may be using at a work site or bringing into our facility. The contractor must also supply a copy of the material safety data sheet relevant to these materials.

Employee Rights Under The Hazard Communication Standard

At any time, an employee has the right to:

- Access the MSDS folder, and the Hazard Communication Program;
- Receive a copy of any environmental sampling data collected in the workplace; and
- See their employment medical records upon request.

Aerial and Boom Lift Procedures

General Operational Safety Precautions

- All newly-acquired aerial lifts should meet the design and construction requirements of the relevant American National Standards Institute and OSHA standards. Every effort should be made to replace equipment that does not meet current standards.
- Modifications to lifts are not allowed without express written approval from the manufacturer (maintain file documentation).
- Most lifts are designed for operation on relatively flat surfaces with minimal slope (< 5%). Do not operate on surfaces that exceed the manufacturer's maximum rated slope.
- Lifts are to be used strictly for the purposes for which they were designed and in accordance with manufacturer's specifications and instructions.
- Service and repair are to be conducted only by qualified mechanics and replacement parts must meet the original equipment manufacturer's specifications.
- Prior to each day's operation, each operator must conduct a worksite and machine inspection, including applicable function tests of controls and safety devices. The purpose of these checks is to detect and abate hazard. Example checklists are provided in the Appendix to this SOP. Additional guidance is provided in the EHS aerial lift training module and the manufacturer's operator's manual.

Hazards

- Electrocutation: Nationally, one of the most common and deadly hazards associated with aerial lifts is electrocutation from contact with electrical wires and conductors. ANSI and OSHA standards specify minimum safe distances that are to be maintained while working in an aerial lift, as indicated in the table below. If these distances cannot be achieved, do NOT use the equipment.

Other Precautions to Avoid an Electrocutation Hazard include:

- If welding while on an aerial lift, do NOT use the platform or any part of the machine for grounding. Adhere to hot work permit requirements. See EHS SOP, *Hot Work Operations*.
- If using electrified tools while on an aerial lift, use only tools that are double insulated or have a grounding plug.
- If using an electromechanical model lift, ensure that the proper gauge of extension cord wire is used and that it is in good condition and equipped with a grounding plug.
- Do not operate the machine outdoors if there is threat of lightning. In fact, do not operate during any type of inclement weather, including windy conditions, since fall and tip-over hazards are exaggerated in these conditions.
- Personnel on the ground are prohibited from operating the ground controls when an aerial lift is in contact with a live electrical source until such time as the electrical source is de-energized.

Tip-over and Collapse

Tip-over and collapse are also serious hazards associated with aerial lifts, being the second leading cause of injury associated with aerial lifts. Reduce this hazard by observing the following precautions:

- Never exceed the manufacturer's specified maximum load (which includes the weight of the person and all tools/supplies/equipment, etc. that will be on the platform).
- Do not operate on surfaces that exceed the manufacturer's maximum slope (typically 5% or less). Always use wheel chocks and brakes when operating on any slope.
- Set up on a firm surface, well away from drop-offs.
- When navigating a lift designed to move with the platform extended, avoid debris, bumps, depressions, or potholes. Do not drive over floor grates or covers. Never exceed the manufacturer's maximum speed recommendations.
- Know the type and proper usage of stabilizing mechanisms used on the lifts that you operate. Do not attempt to move or adjust stabilizing mechanisms while the platform is raised.
- Never position or tie off the lift or platform against a wall, structure, or other surface.
- Maintain the intended center of gravity by evenly dispersing loads on the platform. Never attempt to increase the surface area of the platform with planks, boards, or other devices. Do not let materials extend over the edge of the platform. Do not hang tools or equipment off the sides or rails of the platform.
- Exercise care when raising and lowering the platform to avoid entangling ropes, cords, etc. in the machine.
- Most aerial lifts are intended for a single person. Do not allow more than one person on a lift unless it is specifically designed for that purpose.
- Avoid horizontal forces from work tasks that could cause the platform to sway and become unstable. This includes pushing off or pulling toward any surface, structure, or object outside of the platform.
- Do not operate an aerial lift outdoors during windy conditions or other inclement weather.
- Never climb on the mast or use ladders or scaffolds on any part of the machine.
- Enter and exit the platform only through the intended access point/gate.

Falls

Falling from a lift is another hazard that must be recognized and steps taken to mitigate the risk.

- Guardrails typically provide adequate protection for scissor-like and vertical mast lifts that are stationary, not capable of motive power while the platform is extended, and the platform raises straight up from its base, so long as work activities and practices do not defeat the protection afforded by the guardrail. A full-body harness personal fall arrest systems must be used when operating all boom type lifts. See EHS SOP, *Fall Arrest Systems* or specific requirements.
- Restrict materials and equipment on the platform to that which can be safely handled by one person.
- Keep both feet firmly on the floor of the platform. Do not attempt to gain additional reach by standing on boxes, planks, or other objects.
- Do not lean on or over the rails. Do not sit, stand, or climb on the guardrails.

- Keep your shoes clean and ensure that they have a good, anti-slip tread.
- Keep the platform clean and free of debris. Position equipment so that the weight is evenly distributed and in a manner that does not create a trip hazard.
- Enter and exit the platform only when it is fully lowered.
- If a platform or elevating assembly becomes caught, snagged, or otherwise prevented from normal motion by adjacent structures, or other obstacles such that control reversal does not free the platform, all personnel must be removed from the platform before attempts are made to free the platform using ground controls.

Collision

Collision hazards can exist both overhead and on the ground. To avoid collision hazards:

- Lockout overhead cranes that are located within the working distance of the lift.
- Look below before lowering a platform to verify that persons or objects are not present. Give warning of your intent to descend (audible alarm, voice commands, etc.). If working as a team, verbally verify clearance of your teammate(s) on the ground before lowering.
- Avoid setting up in high traffic areas. If absolutely necessary, attempt to conduct work at low-traffic times, or work with appropriate personnel to temporarily interrupt traffic during the time that the lift is in use. Regardless of the traffic level, place warning barricades at a safe perimeter around the lift to detour both pedestrian and vehicular traffic.
- Be aware of the swing range. Set up in a manner that avoids objects within the range of motion of the machine.
- When moving a lift, use extreme caution and slow and deliberate motions, particularly when space is limited, traffic is high, surface conditions are potentially hazardous (slippery, pot-holes, etc.), or the route contains corners, blind spots, and other visual obstructions.
- For drivable boom lifts, use the boom controls (not the drive controls) for final positioning of the platform close to objects.

Entanglement

Obviously, any lift has many moving parts, which create pinch and/or shear points. To avoid injury from pinch/shear points:

- Keep hands, arms, and other body parts within the confines of the platform and guard rail while working on the platform. Keep hands and fingers away from moving parts while on the ground.
- Avoid loose clothing that could become caught in chains, pulleys, lifts, etc. Keep long hair confined.
- Always ensure that the machine is de-energized before conducting maintenance and repairs.

Improper Use

It is relatively simple to mitigate the risk of injury resulting from improper use.

- Remove the key or otherwise secure a lift while it is being stored so that it is not available to unauthorized persons.

- Do not allow anyone to operate a lift until they have completed instructional and hands-on training and they have demonstrated competency in the operation of the specific lift they are expected to use.
- Refrain from horseplay.
- Use an aerial lift only for the purposes and in the manner specified by the manufacturer. Never use an aerial lift as a crane.

Hazardous Atmosphere

There are a couple of things that must be considered with respect to potentially hazardous atmospheres. The first is the workplace atmosphere irrespective of the aerial lift. Aerial lifts are not intrinsically safe, meaning that they can create sparks that could ignite flammable vapors, fibers, or dusts that may be in the atmosphere. Under no circumstances should a lift be operated in a hazardous location (contains, or has the potential to contain, an explosive or flammable atmosphere). While UNL does not have work sites that ordinarily would contain flammable vapors/dusts/fibers, it is important to recognize that an anomalous condition could present such a hazard (e.g., leak/ruptured drum or tank for gasoline or other solvent, etc.) and this would negate the use of an aerial lift. The other atmospheric hazard to be aware of may arise from operation of certain lifts in unsuitable locations. For example, gasoline, propane, and diesel engines generate exhaust fumes (carbon monoxide and other pollutants) that can be hazardous to the operator and others. This is especially problematic when operating a combustion engine lift in areas that have insufficient ventilation. To avoid creating a hazardous atmosphere:

- Use electric powered units in confined areas;
- Install carbon monoxide detectors in use areas;
- Adhere to maintenance schedules to ensure efficient fuel combustion;
- Remove a lift from service that does not appear to be operating normally (e.g., excessive smoke);
- Clean up spills and leaks of fluids; and
- Know the symptoms of exposure to carbon monoxide. Carbon monoxide is colorless and odorless. You can't easily detect overexposure through your ordinary senses. Rather, you are likely to suffer symptoms such as shortness of breath, nausea, headache, or light-headedness at low to moderate concentrations. Prolonged or high exposures can lead to death. If you suspect an overexposure, seek fresh air. As needed, seek medical attention.

Defective Machine

Before an aerial lift can be used safely it must be in safe condition. That is the purpose of a pre-use inspection—to detect defects or damage that could impair the functioning of the machine or the operator's familiarity with the controls. If a defect is detected during the pre-use inspection, the machine must be clearly tagged out of service until it is repaired. Report all such circumstances to your supervisor in a timely manner. More information on conducting a proper pre-use machine inspection is provided in the EHS training module and the operator's manual for the particular model to be used.

Operator's Checklist

Worksites

- Minimum safe distance from overhead electrical lines and other conductors (< 50 KV – 10 feet; 50 – 199 KV- 15 feet; 200 – 349 KV- 20 feet; 350 – 499 KV- 25 feet; 500 – 749 KV – 35 feet; 750 – 1000 KV – 45 feet).
- Floor and ground conditions are appropriate (free of slippery conditions, uneven surfaces, obstructions, and significant slopes; sufficient load ratings of floor/surface).
- Overhead obstructions are outside of the working range of the lift, if possible. If not, the operator is aware of the overhead obstructions. Hard hat is used (e.g., cross members, trusses, sprinkler heads, water/utility lines, conduit, cranes).
- Lift is protected from pedestrian and vehicular traffic (barricades or other effective means are used to delineate the work zones and divert both vehicular and pedestrian traffic).
- Weather conditions (If operating outdoors, weather conditions are safe; no threat of inclement weather, including windy conditions).
- Atmospheric conditions (work space is free of flammable/explosive vapors, dusts, and fibers; lifts with combustion engines not operated in an enclosed space).
- Machine load ratings and intended use are compatible with the specific machine to be used.

Lift

- Batteries (DC Operated Models)(proper electrolyte level; cable connections should be tight; there should be no visual evidence of corrosion or other deterioration/damage; and the batteries should be of the size and weight specified by the manufacturer).
- Power cord (AC Operated Models) The power cord for AC models should be securely attached and have no visible signs of damage (e.g., cut or cracked insulation, missing prongs, etc.).
- Fluid levels (i.e., oil, hydraulic fluid, coolant, etc.) Frame (look over the entire frame checking for loose or missing hardware, cracked welds, bent pins/sockets, etc.).
- Hydraulic and pneumatic systems (look for signs of deterioration or leakage including reservoirs, hoses, cylinders, etc.).
- Platform raising system (look for worn, nicked, frayed or rusted cables or chains, insufficiently lubricated moving parts, loose tension on chains or cables, bind in pulleys or sheaves, etc.).
- Tires, wheels, casters (check tires, wheels, casters to ensure that they are free rolling and securely attached; if tires are pneumatic, ensure proper inflation level).
- Guardrail (securely attached to the platform, there are no signs of damage (e.g., cracked welds, etc.), and the gate works properly).
- Fall arrest anchoring point (good condition).
- Platform (clean, securely attached to mast).
- Outriggers (cables leading to controls are in good condition and control labels are present and legible).
- Controls (cables leading to controls are in good condition and control labels are present and legible) Instructional and warning labels/decals (present and legible).
- Operator's manual (stowed in the designated weather-resistant compartment on the lift).
- Function tests (all function tests recommended by manufacturer conducted with acceptable results).

Fall Protection

Matrix Energy Services, Inc. has the following requirements for fall protection at all of our worksites.

Fall Protection is Required

When working where there is a hazard of falling more than seven and a half feet from the perimeter of a structure, unprotected sides and edges, leading edges, through shaft ways and openings, sloped roof surfaces steeper than 7:12, or other sloped surfaces steeper than 40 degrees not otherwise adequately protected. Fall protection is also required when working in boom lifts.

Fall Protection Types

One of the following four types of fall protection systems will be used when our employees are exposed to fall hazards in excess of seven and a half feet:

- Standard guardrails, cables or floor hole covers;
- Personal fall arrest system;
- Positioning devices; or
- Fall restraint systems.

Standard Guardrails, Safety Cables, or Covers

These are the easiest and most cost effective methods of providing fall protection and have a very high success rate. Standard guardrails, safety cables, floor hole and sky light covers are our preferred means of fall protection on job sites. The following rules will be followed when using them:

- Railings shall be constructed of wood, or in an equally substantial manner from other materials, and shall consist of a top rail not less than 42 inches or more than 45 inches in height measured from the upper surface of the top rail to the floor, platform, runway or ramp level and a mid rail. The mid rail shall be halfway between the top rail and the floor, platform, runway or ramp. Selected lumber free from damage that affects its strength shall be used.
- Wooden posts shall be not less than two inches by four inches in cross section, spaced at eight-foot or closer intervals.
- Wooden top railings shall be smooth and of two inch by four inch or larger material. Double, one inch by four inch members may be used for this purpose, provided that one member is fastened in a flat position on top of the posts and the other fastened in an edge-up position to the inside of the posts and the side of the top member. Mid rails shall be of at least one-inch by six-inch material.
- The rails shall be placed on the side of the post that will afford the greatest support and protection.
- All guardrails, including their connections and anchorage, shall be capable of withstanding a load of 13 pounds per linear foot applied either horizontally or vertically downward at the top rail.

- Railings receiving heavy stresses from employees trucking or handling materials shall be provided additional strength by the use of heavier stock, closer spacing of posts, bracing, or by other means.
- Floor, roof and skylight openings shall be guarded by a standard railing and toe-boards or cover. Covering shall be capable of safely supporting the greater of the weight of a 200-pound person or the weight of worker(s) and material(s) placed thereon.
- Coverings shall be secured in place to prevent accidental removal or displacement, and shall bear a pressure sensitized, painted, or stenciled sign with legible letters not less than one-inch high, stating: Opening - Do Not Remove. Markings of chalk or keel shall not be used.
- Ladder way floor openings or platforms shall be guarded by standard railings with standard toe boards on all exposed sides, except at the entrance to the opening, with the passage through the railing either provided with a swinging gate or so offset that a person cannot walk directly into the opening.
- Floor holes, into which persons can accidentally walk, shall be guarded by either a standard railing with standard toe boards on all exposed sides, or a floor hole cover of standard strength and construction that is secured against accidental displacement. While the cover is not in place, the floor hole shall be protected by standard railings.
- Wall openings, from which there is a drop of more than four feet, and the bottom of the opening is less than three feet above the working surface, shall be guarded with either a standard rail or intermediate rail or both.
- An extension platform outside a wall opening onto which materials can be hoisted for handling shall have side rails or equivalent guards of standard specifications. One side of an extension platform may have removable railings in order to facilitate handling materials.
- Wall opening protection barriers shall be of such construction and mounting that, when in place at the opening, the barrier is capable of withstanding a load of at least 200 pounds applied in any direction (except upward).
- All elevator shafts in which cages are not installed and which are not enclosed with solid partitions and doors shall be guarded on all open sides by standard railings and toe boards.
- A full body harness and lanyard are required when using boom lifts.

Personal Fall Arrest Systems

Personal fall arrest systems consist of a full body harness and a shock-absorbing lanyard attached to suitable anchorage. They are also an effective means of preventing fall accidents. The system does not actually stop you from falling, but catches you and safely stops you from hitting the level below. Fall arrest systems will be our preferred means of protection when standard guardrails, safety cables, or covers are not practical. The following rules, in addition to the manufacturer's requirements and OSHA regulations, will be observed:

- Ropes and straps (webbing) used in lanyards, lifelines, and strength components of body harnesses shall be made from synthetic fibers except when they are used in conjunction with hot work where the lanyard may be exposed to damage from heat or flame.
- 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 part of a complete personal fall arrest system which maintains a safety factor of at least two, and under the supervision of a qualified person.

- The attachment point of the body belt shall be located in the center of the wearer's back. The attachment point of the body harness shall be located in the center of the wearer's back near shoulder level, or above the wearer's head.
- Where practical, the anchor end of the lanyard shall be secured at a level not lower than the employee's waist, limiting the fall distance to a maximum of four feet.
- Harnesses, lanyards, and other components shall be used only for employee protection as part of a personal fall arrest system and not to hoist materials.
- 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.
- Matrix Energy Services, Inc. shall provide for prompt rescue of employees in the event of a fall or shall assure that employees are able to rescue themselves.
- Personal fall arrest systems shall be inspected prior to each use for wear, damage, and other deterioration, and defective components shall be removed from service.
- Any lanyard, safety harness, or drop line subjected to in-service loading, as distinguished from static load testing, shall be immediately removed from service and shall not be used again for employee safeguarding.
- Personal fall arrest systems shall not be attached to guardrails, unless the guardrail is capable of safely supporting the load.
- Each personal fall arrest system shall be inspected not less than twice annually by a competent person in accordance with the manufacturer's recommendations. The date of each inspection shall be documented.
- Personal fall arrest systems will be rigged such that an employee can neither free fall more than four feet, nor contact any lower level.
- Personal fall arrest systems will bring an employee to a complete stop. They will also limit maximum deceleration distance an employee travels to three and a half feet, and have sufficient strength to withstand twice the potential impact energy of an employee free falling a distance of six feet, or the free fall distance permitted by the system, whichever is less.

Positioning Device Systems (Aerial and Boom Lift protection)

Positioning device systems are designed to allow employees to work with both hands free at elevated locations. By their very nature, they provide some level of fall protection. They are not as effective as railings or fall arrest systems. Positioning device systems may be used together with a fall arrest system for greater safety. Their use shall conform to the following provisions:

- Positioning devices shall be rigged such that an employee cannot free fall more than two feet.
- Positioning device systems shall be inspected prior to each use for wear, damage, and other deterioration and defective components shall be removed from service.
- Body belts, harnesses, and components shall be used only for employee protection (as part of a personal fall arrest system or positioning device system) and not to hoist materials.
- The use of non-locking snap hooks is prohibited.
- Anchorage points for positioning device systems shall be capable of supporting two times the intended load or 3,000 pounds, whichever is greater.

Personal Fall Restraint (Aerial and Boom Lift protection)

Fall restraint systems are designed to prevent the wearer from reaching the edge or danger area and thus prevent them from falling. Body belts or harnesses may be used for personal fall restraint.

- Body belts shall be at least one and five-eighths inches wide.
- Anchorage points used for fall restraint shall be capable of supporting four times the intended load.
- Restraint protection shall be rigged to allow the movement of employees only as far as the sides of the working level or working area.

Note: 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.

Electrical Safety & Lock-out/Tag-out Program

Matrix Energy Services, Inc. has developed the following procedures to protect our employees and reduce the risk of accidents. We will also conduct scheduled review of electrical safety, energy control procedures, and lock-out/tag-out at least annually to ensure that the procedure and the requirements of this section are being followed.

This procedure is binding upon all employees. All employees will be instructed in the significance of electrical safety, energy control procedures, and lock-out/tag-out. Each new employee shall be instructed by their Supervisor in the purpose and use of these procedures.

All Equipment and Installations

- Only trained, qualified, and authorized employees will be allowed to make electrical repairs or work on electrical equipment or installations.
- All electrical equipment and systems shall be treated as energized until tested or otherwise proven to be de-energized.
- All energized equipment and installations will be de-energized prior to the commencement of any work. If the equipment or installation must be energized for test or other purposes, special precautions will be taken to protect against the hazards of electric shock.
- All equipment shall be locked out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy-isolating device bearing a lock.
- Safety grounds shall always be used where there is a danger of shock from back feeding or other hazards.
- Polyester clothing or other flammable types of clothing shall not be worn near electrical circuits. Cotton clothing is much less likely to ignite from arc blast. Employees working on live circuits shall be provided Nomex or equivalent fire resistant clothing.
- Suitable eye protection must be worn at all times while working on electrical equipment.
- Always exercise caution when energizing electrical equipment or installations. Take steps to protect employees from arc blast and exploding equipment in the event of a fault.
- All power tools will be grounded or double insulated. Tools with defective cords or wiring shall not be used.
- Suitable temporary barriers or barricades shall be installed when access to open enclosures containing exposed energized equipment is not under the control of an authorized person.

Accident Prevention Tags

Suitable accident prevention tags shall be used to control a specific hazard. Such tags shall provide the following minimum information:

- Reason for placing tag;
- Name of person placing the tag and how that person may be contacted; and
- Date tag was placed.

Lock-out/Tag-out

Machinery or equipment capable of **movement** shall be stopped and the power source de-energized or disengaged, and locked out. If necessary, the moveable parts shall be mechanically blocked or secured to prevent inadvertent movement during cleaning, servicing or adjusting operations unless the machinery or equipment must be capable of movement during this period in order to perform the specific task. If so, the hazard of movement shall be minimized.

Equipment or power driven machines equipped with lockable controls, or readily adaptable to lockable controls, shall be locked out or positively sealed in the *off* position during repair work and when setting up operations. In all cases, accident prevention signs and/or tags shall be placed on the controls of the equipment or machines during repair work.

Matrix Energy Services, Inc. will provide a sufficient number of accident prevention signs or tags, and padlocks, seals, or other similarly effective means that may be required by any reasonably foreseeable repair.

Sequence of Lockout Procedure

1. Notify all affected employees that a lockout is required and the reason therefore.
2. If the equipment is operating, shut it down by the normal stopping procedure (such as: depress stop button, open toggle switch).
3. Operate the switch, valve, or other energy isolating devices so that the energy source(s) (electrical, mechanical, hydraulic, and other) is disconnected or isolated from the equipment.
4. Stored energy, such as that in capacitors, springs, elevated machine members, rotating fly wheels, hydraulic systems, and air, gas, steam, or water pressure, must also be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down.
5. Lockout energy isolating devices with an assigned individual lock.
6. After ensuring that no personnel are exposed and as a check on having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate. CAUTION: Return operating controls to neutral position after the test.

Procedure Involving More Than One Person

If more than one individual is required to lock out equipment, each shall place his/her own personal lock on the energy isolating device(s). One designated individual of a work crew or a Supervisor, with the knowledge of the crew, may lock out equipment for the whole crew. In such cases, it may be the responsibility of the individual to carry out all steps of the lockout procedure and inform the crew when it is safe to work on the equipment. Additionally, the designated individual shall not remove a crew lock until it has been verified that all individuals are clear.

Testing Equipment During Lockout

In many maintenance and repair operations machinery may need to be tested, and for that purpose energized before additional maintenance work can be performed. This procedure must be followed:

- Clear all personnel to safety;
- Clear away tools and materials from equipment;

- Remove lockout devices and re-energize systems, following the established safe procedure;
- Proceed with tryout or test; and
- Neutralize all energy sources once again, purge all systems, and lockout prior to continuing work.

Equipment design and performance limitations may dictate that effective alternative worker protection be provided when the established lock-out procedure is not feasible.

Restoring Equipment to Service

After the work is completed and the equipment is ready to be returned to normal operation, this procedure must be followed:

- Remove all non-essential items;
- See that all equipment components are operationally intact, including guards and safety devices. Repair or replace defective guards before removing lockouts;
- Remove each lockout device using the correct removal sequence; and
- Make a visual check before restoring energy to ensure that everyone is physically clear of the equipment.

High Heat Illness Prevention Training

Types of Heat Related Illness

Heat Stroke: Heat stroke is a condition in which your body cannot manage its temperature; it cannot disperse the excess heat from your body resulting in heat stroke.

What are the signs?

- Excessive sweating or extremely dry skin;
- Confusion;
- Hallucination;
- Slurred speech; and
- Headache.

First Aid

- Call 911 and notify a supervisor
- Get the affected person to a shaded or cool area
- Soak the injured person in cold water
- Fan the injured until medical care is present

Heat Exhaustion: Heat exhaustion is a condition in which the body has lost massive amounts of water and salt due to profuse sweating in high temperature environments.

What are the signs?

- Shallow breathing;
- Pale or moist skin;
- Thirst;
- Dizziness & fainting;
- Muscle cramps;
- Headache; and
- Rapid heartbeat.

First Aid

- Assist the injured person to a cool area
- The affected should drink plenty of water
- A cold shower is recommended to moderate temperatures

Heat Syncope: Heat syncope is fainting or dizziness due to sitting or standing while being dehydrated.

What are the signs?

- Dizziness; and
- Fainting.

First Aid

- Getting injured to a cool place; and
- Drinking cold water slowly.

Heat Cramp: Heat cramps are painful cramps due to loss of fluids due to heat exposure.

What are the signs?

- Muscle spasm/ cramping.

First Aid

- Getting injure to a cool place;
- Cease vigorous work for a period of two hours; and
- Drinking clear liquids high in electrolytes, such as Gatorade or apple juice.

Heat Rash: A heat rash is a rash that develops due to excessive amounts of sweat exposure.

What are the signs?

- Blistering; and
- Bumpy red skin.

First Aid

- Keep infected area dry; and
- Avoid exposure to direct sunlight.

High Heat Prevention Procedures

High heat is where temperatures are extreme; this may vary from extreme dry heat to muggy and humid heat.

How do I avoid high heat before I get to work?

- Wear light colored clothing that is loose fitted to the body;
- Avoid leaving damaged skin (sunburns) exposed to the sun; wear light colored clothing that covers the damaged skin area. Having sunburn can reduce the body's ability to rid its self of heat;
- Sunscreen is a crucial tool if exposed to the sun; and
- Speak to your physician if taking medications that cause dehydration for a prevention plan for heat exposure.

How do I avoid getting overheated in the field?

It is suggested by OSHA that you follow their three simple steps: Water, Rest, Shade. These include the following:

Water

- During high temperatures a body needs a higher liquid intake. Don't wait to rehydrate, drink two to four glasses (16-32 ounces) of cool fluids each hour.

Rest/Shade

- Rest needs to be taken in the shade.

WARNING: Do not drink very cold drinks because they may lead to discomfort and stomach cramps. Avoid drinking liquids that contain alcohol and drinks with large amounts of sugar as these can cause you to lose more body fluid.

Fleet & Driving Safety

Matrix Energy Services, Inc. has established the following guidelines and procedures for our drivers and vehicles to protect the safety of individuals operating any motor vehicle on company business. Protecting our employee drivers, their passengers, and the public is of the highest priority. The commitment of management and employees is critical to the success of this program. Clear communication and strict adherence to the program's guidelines and procedures are essential.

Our primary goal is to maintain a high level of safety awareness and foster responsible driving behavior. Driver safety awareness and responsible driving behavior will significantly decrease the frequency of motor vehicle accidents and reduce the severity of personal injuries and property damage.

Drivers must follow the requirements outlined in this program. Violations of this program may result in disciplinary action up to, and including, suspension of driving privileges or dismissal.

Our program consists of the following elements:

- Driver selection;
- Driver training;
- Vehicle use policy;
- Vehicle inspection and preventive maintenance; and
- Accident investigation.

Driver Selection

Only company authorized and assigned employees are allowed to drive company vehicles at any time. Prior to being authorized and assigned, Matrix Energy Services, Inc. will check the following items. Drivers must have:

- A valid un-restricted driver's license; and
- A current DMV driving record with no more than two points and no serious or major violations.

Matrix Energy Services, Inc. will also check driving records of all employees authorized to drive on company business on an annual basis. Employees who do not meet these requirements are not authorized or allowed to drive company vehicles or drive their own vehicle on company business.

Driver Training

All employees driving company vehicles and personal vehicles on company business, will be given a copy of the Driving Safety Rules and Company Vehicle Use Policy and be required to read and sign for them. Safe driving will also be periodically covered at company safety meetings.

Company Vehicle Use Policy

Matrix Energy Services, Inc. has established the following policies pertaining to company vehicles:

- Personal and off duty use of Matrix Energy Services, Inc. vehicles is prohibited.
- Only authorized employees may drive Matrix Energy Services, Inc. vehicles. No other family members may drive company vehicles.
- Non-employee passengers are not permitted in Matrix Energy Services, Inc. vehicles at any time, unless they are business related.
- Seat belts must be worn in Matrix Energy Services, Inc. vehicles at all times.
- No employee is permitted to drive Matrix Energy Services, Inc. vehicles while impaired by alcohol, illegal or prescription drugs, or over the counter medications.
- All accidents involving Matrix Energy Services, Inc. vehicles must be reported to the office immediately.
- Employees with two or more preventable accidents in a three-year period, or that obtain three points on their driving record, will be subject to a loss of their driving privileges or have their driving privileges restricted.

Vehicle Inspection & Preventive Maintenance

All Matrix Energy Services, Inc. vehicles must be inspected by the driver prior to each use. Mechanical defects will be repaired immediately. The Safety Coordinator will periodically spot check company vehicles to determine their condition.

Vehicle inspections will include:

- Lights;
- Turn signals;
- Emergency flashers;
- Tires;
- Horn;
- Brakes;
- Fluids;
- Windshield condition and wiper condition; and
- Mirrors.

All vehicles will also be maintained in accordance with the manufacturers' recommendations. It is the responsibility of the individual assigned the vehicle to ensure proper maintenance and repairs are performed. If your vehicle is not safe, do not drive.

Accident Investigation

All accidents in Matrix Energy Services, Inc. vehicles will be investigated by the Supervisor, Manager and/or Safety Coordinator. Where possible, witness's statements will be obtained and photos used to document the scene of the accident and the damage. Police reports will also be obtained whenever possible. The following guidelines will be used to help determine preventability.

Auto Accident Preventability Guide

This guide will assist in determining whether our driver could have prevented the accident. An accident is preventable if the driver could have done something to avoid it. Drivers are expected

to drive defensively. Which driver was primarily at fault, which received a traffic citation, or whether a claim was paid has no bearing on preventability. If there was anything our driver could have done to avoid the collision, then the accident was preventable.

An accident was non-preventable when the vehicle was legally and properly parked, or when properly stopped because of a highway patrol officer, a signal, stop sign, or traffic condition. When judging accident preventability, here are some general questions to consider:

- Does the investigation indicate that the driver considers the rights of others, or is there evidence of poor driving habits that need to be changed?
- Does the investigation indicate driver awareness? Such phrases as *I did not see*, *I didn't think*, *I didn't expect*, or *I thought* are signals indicating there probably was a lack of awareness, and the accident was preventable. An aware driver should think, expect, and see hazardous situations in time to avoid collisions.
- Was the driver under any physical stresses that could have been contributory? Did the accident happen near the end of a long day or long drive? Did overeating contribute to fatigue? Did the driver get prior sufficient sleep? Is the driver's vision faulty? Was the driver feeling ill?
- Was the vehicle defective without the driver's knowledge? Was a pre-trip inspection done, and would it have discovered the defect? A car that pulls to the left or right when the driver applies the brakes, faulty windshield wipers, and similar items are excuses, and a driver using them is trying to evade responsibility. Sudden brake failure, loss of steering, or a blowout might be defects beyond the driver's ability to predict. However, pre-trip inspections and regularly scheduled maintenance should prevent most of these problems. If either of these are the cause of the accident, then the accident was probably preventable by the driver.
- Could the driver have exercised better judgment by taking an alternate route through less congested areas to reduce the hazardous situations encountered?
- Could the driver have done anything to avoid the accident?
- Was the driver's speed safe for conditions?
- Did the driver obey all traffic signals?
- Was the driver's vehicle under control?

Intersection Collisions

Failure of our driver to yield the right-of-way, regardless of who has the right of way, as indicated by stop signs or lights, is preventable. The only exception to this is when the driver is properly proceeding through an intersection protected by lights or stop signs and the driver's vehicle is struck in the extreme rear side of the vehicle. Regardless of stop signs, stoplights, or right-of-way, a defensive driver recognizes that the right-of-way belongs to anyone who assumes it and should yield accordingly.

Questions to consider:

- Did the driver approach the intersection at a speed safe for conditions?
- Was the driver prepared to stop before entering the intersection?
- At a blind corner, did the driver pull out slowly, ready to apply the brakes?

- Did the driver look both ways before proceeding through the intersection?

Sideswipes

Sideswipes are often preventable. Defensive drivers do not get into a position where they can be forced into another vehicle or another vehicle can be forced into them. Defensive drivers continuously check for escape routes to avoid sideswipes. For two-lane roads, this means a driver should pass another vehicle only when absolutely certain that he or she can safely complete the pass. A driver should also be ready to slow down and let a passing vehicle that has failed to judge safe passing distance back into the lane. A driver should make no sudden moves that may force another vehicle to swerve. If a driver sideswipes a stationary object while taking evasive action to avoid striking another car or a pedestrian, such an accident may not be preventable. However, you should consider what the driver could have done or failed to do immediately preceding the evasive action to be in the position of no other options.

A driver is also expected to anticipate the actions of an oncoming vehicle. Sideswiping an oncoming vehicle is often preventable. Again, evasive action, including leaving the roadway, may be necessary if an oncoming vehicle crosses into the driver's lane. Drivers are expected to allow merging vehicles to merge smoothly with them, and to merge smoothly on controlled access highways. Drivers are expected to be able to gauge distances properly when leaving a parking place and enter traffic smoothly.

Questions to consider:

- Did the driver look to front and rear for approaching and overtaking traffic immediately before starting to pull away from the curb?
- Did the driver signal before pulling away from the curb?
- Did the driver look back rather than depend only upon rear-view mirrors?
- Did the driver start into traffic only when this action would not require traffic to change its speed or direction in order to avoid his or her vehicle?

Head-on Collisions

A head-on collision with a vehicle traveling in the wrong lane may be preventable if the driver could have pulled off the road or taken other evasive action to prevent a collision. However, the driver should never drive into the other lane to avoid the oncoming vehicle. If the driver swerved off the road to avoid a head-on collision, the accident is non-preventable. The driver in this case made a good defensive driving decision, taking the lesser of two evils.

Many skidding conditions are caused by rain, freezing rain, fog, and snow, which all increase the hazard of travel. Oily road film, which builds up during a period of good weather, causes an especially treacherous condition during the first minutes of a rainfall. Loss of traction can be anticipated, and these accidents usually are preventable. Driving too fast for conditions is the most common reason why these types of accidents are preventable.

Questions to consider:

- Was the driver operating at a safe speed considering weather and road conditions?
- During inclement weather, was the driver keeping at least twice the safe following distance used for dry pavement?
- Were all actions gradual?
- Was the driver anticipating ice on bridges, in gutters, ruts, and near the curb?
- Was the driver alert for water, ice or snow in shaded areas, loose gravel, sand, ruts, etc.?

If a driver goes off the road or strikes another vehicle because of skidding, the accident is preventable.

Pedestrian Accidents

All types of pedestrian accidents, including collisions with pedestrians coming from between parked cars, are usually considered preventable. There are few instances where the action of pedestrians is so unreasonable that the operator could not be expected to anticipate such an occurrence.

Questions to consider:

- Did the driver go through congested areas expecting that pedestrians would step in front of the vehicle?
- Was the driver prepared to stop?
- Did the driver keep as much clearance between his or her vehicle and parked vehicles, as safety permitted?
- Did the driver stop when other vehicles had stopped to allow pedestrians to cross?
- Did the driver wait for the green light or stop for the caution light?
- Was the driver aware of children and prepared to stop if one ran into the street?
- Did the driver give all pedestrians the right-of-way?
- Did the driver stop for a school bus that was stopped and properly signaling that passengers were loading or unloading?

Backing Accidents

Backing a vehicle into another vehicle, an overhead obstruction, or a stationary object is normally preventable. The fact that someone was directing the driver in backing does not relieve the driver of the responsibility to back safely.

Questions to consider:

- Was it necessary to back?
- Did the driver plan ahead so that he or she could have pulled forward out of the parking space instead of backing?
- Was it necessary to drive into the narrow street, dead-end alley, or driveway from which he or she backed?
- If the driver could not see where he or she was backing did the driver try to get someone to guide him or her?

- Did the driver look all around the vehicle before backing? Did the driver back immediately after looking?
- Did the driver use the horn while backing? Were the back-up lights working?
- Did the driver look to the rear without relying totally on the rear-view mirror?
- If the distance was long, did the driver stop, get out, and look around occasionally?
- Did the driver back slowly?
- Did the driver judge clearances accurately?

Parking Accidents

Doors on our driver's parked vehicle that are damaged when opened on the traffic side are considered preventable accidents. The driver is responsible to see that the traffic side is clear of traffic, before any doors on that side are opened.

In most cases, if our driver, while driving, strikes a parked vehicle's opening door it is considered preventable. Usually, our driver can see from a sufficient distance that the parked vehicle is occupied, and should therefore, be prepared to stop, should move closer to the center line, or change lanes.

It is a driver's responsibility to park the vehicle so that it will remain stationary. A runaway type accident is preventable and blaming such a collision on defective parking brakes or other holding devices are inadequate excuses. A good pre-trip inspection and maintenance program will eliminate most opportunities for this type of accident being the result of mechanical failure.

Accidents occurring when vehicles are properly and legally parked are considered non-preventable. Accidents occurring while the vehicle was double-parked or in a *No Parking* zone are preventable.

Questions to consider:

- Was the vehicle parked on the proper side of the road?
- Was it necessary to park there or was there a safer, only slightly less convenient place nearby?
- Did the driver have to park on the traveled part of the highway, on the curve, or on the hill?
- When required, did the driver warn traffic by emergency warning devices?
- Did the driver park parallel to the curb?
- Was it necessary to park so close to an alley or directly across from a driveway?

Collision With Obstructions

Obstructions can be avoided if the driver knows the height and width of the vehicle, pays attention to posted clearances, and takes the time to properly judge clearances.

Cargo Accidents

The accident should be considered preventable if the investigation shows a mechanical defect of which the driver was aware, a defect the driver should have found by inspecting the vehicle, or the driver caused the accident by rough and abusive handling. It is a driver's responsibility to secure cargo properly to prevent shifting, loss, or damage. Cargo should be safely stowed to prevent flying objects that can strike or distract the driver.

Ergonomics

Studies have shown over the years that poorly designed and arranged work areas, awkward work postures, and repetitive motions can lead to a variety of injuries including carpal tunnel syndrome and tendonitis, which are often referred to as repetitive motion injuries (RMIs). As with cancer, heart disease, and many other ailments, there are risk factors that increase an individual's likelihood of developing RMIs. If the risk factors are reduced, so are the chances of being injured. While some of these risk factors, such as family history, cannot be controlled in the employment setting, many can, including the following.

- The force used to perform a task;
- Posture while performing tasks;
- The number of repetitions performed in a given time period; and
- Mechanical stresses such as hard surfaces.

Matrix Energy Services, Inc. has developed the following program designed to minimize RMIs. The program includes worksite evaluations, control of exposures that have caused RMIs, and training of employees.

Worksite Evaluation and Exposure Reduction.

Each job, process, or operation of identical work activity that has resulted in at least two RMIs or a representative number of such jobs, processes, or operations, shall be evaluated for exposures that have caused RMIs. Matrix Energy Services, Inc. may request assistance from outside consultants for this purpose.

Any exposures that have caused RMIs shall, in a timely manner, be corrected, or if not capable of being corrected, have the exposures minimized to the extent feasible. We shall consider engineering controls, such as work station redesign, adjustable fixtures or tool redesign, and administrative controls, such as job rotation, work pacing or work breaks.

Training

Affected employees shall be provided training that includes an explanation of:

- Matrix Energy Services, Inc. program;
- The exposures which have been associated with RMIs;
- The symptoms and consequences of injuries caused by repetitive motion;
- The importance of reporting symptoms and injuries to their supervisor; and
- Methods used to minimize RMIs.

This training may be conducted as part of the regular safety meetings.

Emergency Action Plan - Corporate Office

In the event of an emergency such as earthquake or fire, all employees are expected to evacuate the premises, immediately. At no time will any employee be expected to jeopardize their own safety during emergencies.

Employees will be notified of emergencies through one of the following methods:

- Fire alarm;
- Bullhorn (hand-held loud speaker); or
- Direct voice communication.

Employees are expected to head to the nearest exit and evacuate the building. Maps are posted throughout the building to guide employees to exits and to direct them to the designated evacuation/meeting area. Maps will also include the location of the first aid station, exits, fire extinguishers, emergency shut offs to water and electricity for the building and the location of the closest fire hydrant outside the building. After the emergency evacuation is completed, a head count will be taken using the building sign-in/out sheet and the visitor log to ensure everyone is out of the building.

Fire Prevention in Shops and Warehouses

The following procedures will be used to prevent fires in shops and warehouses.

- All accumulated combustible trash and debris will be removed as soon as practical.
- Flammable liquids will only be stored and dispensed from UL approved safety containers designed for that purpose.
- All rags soaked with flammable or combustible liquids will be properly stored in closed metal containers.
- Appropriate precautions will be taken to prevent fires when torch cutting, welding, or soldering.
- Compressed gas cylinders containing flammable or explosive gasses will be properly stored in the upright position with their caps on and protected from heat or puncture. Fuel gas and oxygen shall be separated at least 20 feet when stored.
- Smoking or open lights are prohibited within 50 feet of flammable liquid or gas storage and dispensing areas.
- Flammable solvents will not be used for cleaning purposes.
- A fire extinguisher, rated not less than 2A, shall be provided for each 3,000 square feet of the floor area, or fraction thereof. Where the floor area is less than 3,000 square feet, at least one extinguisher shall be provided.
- Travel distance from any point of the protected area to the nearest fire extinguisher shall not exceed 75 feet.
- At least one fire extinguisher, rated not less than 2A, shall be provided on each floor. In multi-story buildings, at least one fire extinguisher shall be located adjacent to the stairway at each floor level.

- A fire extinguisher, rated not less than 10B, shall be provided within 50 feet of wherever more than five gallons of flammable or combustible liquids or five pounds of flammable gas are being used on the job site. This requirement does not apply to the integral fuel tanks of motor vehicles.
- Portable fire extinguishers shall be inspected monthly, or at more frequent intervals by the employer, and serviced at least annually by a person licensed or registered by the State Fire Marshal. NOTE: Inspection is a “quick check” that an extinguisher is available and will operate. It is intended to give reasonable assurance that the extinguisher is fully charged and operable. This is done by seeing that it is in its designated place, that it has not been actuated or tampered with, and that there is no obvious or physical damage or condition to prevent operation.
- Suitable fire control devices, such as portable fire extinguishers, shall be available at locations where flammable or combustible liquids are stored.
- At least one portable fire extinguisher, having a rating of not less than 20B units, shall be located outside of, but not more than 10 feet from, the door opening into any room used for flammable liquid storage.
- At least one portable fire extinguisher, having a rating of not less than 20B units, shall be located not less than 25 feet, nor more than 75 feet, from any flammable liquid storage area located outside.

Office Safety

Office accidents can and do happen. To prevent them, Matrix Energy Services, Inc. has developed the following rules for our office staff. We will also endeavor to include office employees in periodic safety meetings. If at any time you feel there is a safety hazard, or you have any safety concerns, please do not hesitate to notify Larissa Wesley, Safety Coordinator.

- Report all accidents and injuries, no matter how minor, to your Supervisor immediately.
- Correct or report any safety hazards that you observe.
- Clean up any spilled material that may present a slipping hazard.
- Do not stretch any cords across aisles that may present a tripping hazard.
- No one is allowed to climb on shelves or stand on chairs; you must use a step stool or ladder.
- Keep all legs of the chair on the floor. Do not tilt chairs too far back.
- No one shall be in the possession of, or under the influence of, alcohol or controlled substances while on the premises.
- No horseplay will be tolerated.
- Close file drawers when not in use.
- Do not open more than one file drawer at a time. This could cause the cabinet to tip.
- Do not store heavy objects above your head that could fall on you in an earthquake.
- Do not store flammable or combustible materials near heaters or other heat sources.
- If you are unsure how to do any task safely, ask your supervisor.
- Do not operate any equipment you are not trained and authorized to use.
- Always follow safe lifting procedures when lifting any object and get help for heavy loads.
 - Bend your knees, not your back;
 - Keep the load close to body;
 - Keep your back straight;
 - Lift with your legs; and
 - Do not lift and twist.

Office Ergonomics

Studies have shown over the years that poorly designed and arranged work areas and repetitive motions can lead to a variety of injuries including carpal tunnel syndrome and tendonitis, which are often referred to as repetitive motion injuries (RMI). As with cancer, heart disease, and many other ailments, there are risk factors that increase an individual's likelihood of developing RMI. If the risk factors are reduced, so are the chances of being injured. While some of these risk factors, such as family history, cannot be controlled in the employment setting, many can, including:

- The force used to perform a task;
- Posture while performing tasks;
- The number of repetitions performed in a given time period; and
- Mechanical stresses such as hard surfaces.

The most significant RMI risk factor in office environments is poor body posture caused by improper workstation design or layout. In many cases employees are required to work in awkward positions for long periods of time. This greatly increases the likelihood of injury. Fortunately, this

is often the easiest problem to correct. The goal is to perform work in neutral posture as much as possible. Neutral posture is best described as the most comfortable position and usually involves little or no twisting or deviation of the joints.

To apply the principle of neutral posture to the office setting we need to look at the five major components of office workstations. They are: the chair, the computer keyboard, the desk, the computer monitor, and the work product.

Chairs are often the most overlooked piece of office equipment, yet they are the single most important item from an ergonomic standpoint. A poor chair that lacks adjustments and support makes it almost impossible to work comfortably and in neutral posture. Good office chairs are fully adjustable including:

- Chair height;
- Height of the backrest;
- The position forward or back of the backrest;
- The position forward or back of the seat pan;
- The angle (tilt) of the seat pan; and
- If armrests are provided, they should be height and width adjustable.

In many cases, fully adjustable chairs are provided for employees, but they never adjust them. Make sure you understand all of the adjustments your chair has and how to use them. When in doubt, read the owner's manual or ask. A properly adjusted chair should allow the user to rest their feet comfortably on the floor without putting pressure on their lower thighs. Their knees should be approximately the same height as their hips, or slightly higher, and they should be able to sit back against the backrest which is positioned for low back support. If your feet don't rest comfortably on the floor the chair is too high. If the chair cannot be lowered any further, a footrest should be used. Whether armrests are provided depends on the type of workstation and personal preference. If they are provided, they should be height adjustable to allow the arms to rest comfortably on them without excessive shoulder drop. Armrests should also be well padded to reduce pressure on the lower arms.

Once the chair is properly adjusted, the next step is to position the keyboard to minimize bend in your wrists. In order to accomplish this, it is often necessary to have a position and height adjustable keyboard tray attached to the underside of the desk. These should not be confused with keyboard drawers that cannot be adjusted for height or position. If you do not use a tray, the only way to adjust the keyboard height is by moving the desk that is difficult at best, and sometimes impossible. Using a tray also frees up workspace on the desk where the keyboard once sat.

The height of the keyboard should be set so that there is approximately a 90-degree angle between the upper and lower arms. There should also be a straight line from the elbow out through your fingers. If your fingers hang down too much or bend up, creating a "V" between your hand and forearm, you place extra stress on your wrist. Many people find it comfortable to use padded wrist rests in front of the keyboard. This often helps minimize wrist deflection. The keyboard tray should also be adjusted so that you do not have to reach forward too far to type. Your elbows should be close to your side and back by your spine, not out in front of you. Do not extend the

small legs on the bottom of the keyboard tray. This increases the wrist angle unnecessarily. Many keyboard trays now also have extensions for your mouse. This places everything you need within easy reach.

After you have adjusted the chair and keyboard tray, try using your desk. You should be able to comfortably write and use your other office equipment such as the calculator and phone. Some of these items may need to be moved closer to you. Your legs should also fit easily under the desk. Often, stored items such as boxes block this and should be removed. The standard desk height is fine for most people. If you are exceptionally tall or short, however, adjusting the desk up or down an inch, if possible, may be helpful.

Now you are ready to position your monitor. It should be directly in front of you. Monitors that are off to one side cause you to turn your neck that can lead to injury. The top of the screen should be at about eye level. If the screen is too low your neck will ache from constantly looking down. Putting old phone books or reams of copy paper under them can easily raise monitors. You may also use a special adjustable monitor holder to free up desk space. Tilt the screen so that the top is closer to you than the bottom. This will reduce glare from overhead lights. If you can't get away from outside light, use a glare screen to improve contrast and reduce eyestrain that can cause headaches. Also know how to adjust the screen contrast and brightness controls and keep the screen clean and free of dust and fingerprints.

The work product should be kept within easy reach. Heavy notebooks or binders that you use often should be placed near you. If you use the phone a lot, consider using a headset to reduce neck strain and free up your hands for other tasks. Copyholders can be very helpful if you are entering data or typing from paper. Set them up so they are as close to the screen as possible to reduce neck motion.

The risk factors of force, repetition, and mechanical stress are also controllable in an office environment. Force can be reduced by using automatic staplers and date stamps. If heavy files, boxes, or other items must be moved, use carts and dollies. When filing, use two hands to hold the larger files and keep heavy items stored between knee and shoulder height to reduce strain on your back and arms.

Repetition is controllable through the use of task management. Break up the work as much as possible throughout the day. If possible, do not spend more than two hours at a time typing or entering data. Intersperse other tasks such as filing to use other muscle groups. You should take ten-minute breaks every two hours if you are doing repetitive tasks.

Mechanical stress occurs when you rest parts of your body against hard or sharp objects. This cuts off blood flow and presses on nerves, which can lead to numbness and tingling. Sharp edges can be padded or cushioned where needed to reduce this.

Subcontractor Management Plan

Purpose

The purpose of this program is to ensure that Matrix continues to improve subcontractor health, safety and environmental performance and to establish a standard for pre-qualification, evaluation/selection and development of our subcontractors.

Scope

This program applies to all subcontractors in all locations.

General Requirements

All Matrix subcontractors are to be managed in accordance with this program. The use of subcontractors must be pre-approved by Matrix. Approval requirements include:

- A formal safety review of the subcontractor being performed by safety coordinator.
- The scope of the review will be commensurate with the hazards and risk exposure.
- Subcontractor will be oriented to the safety policies, expectations and requirements.
- Subcontractor agrees to abide by our Drug and Alcohol policy and onsite safety rules throughout the duration of the work.
- Any subcontractor that has a “Non-Approved” safety status will not be used on any site.

Procedure

- Pre-Qualification of Subcontractors
- Subcontractors will be pre-qualified by reviewing their safety programs, safety training documents and safety statistics.

Evaluation Safety Metrics

Acceptable safety metrics will be used as criteria for prequalifying and selecting subcontractors. The safety metrics and scoring will consider:

- Matrix Subcontractor Safety Pre-Qualification Form responses and subcontractor safety program documents review 60% (Rated from 0-60 total points).
- Subcontractor safety training documents review 20% (Rated from 0-20 total points).
- Subcontractor safety statistics review 20% (Rated from 0-20 total points).

Evaluation Rating and Acceptance

The subcontractor rating system will have five designations:

- Equal to or Greater than 90 points = A – no restrictions.
- Between 85 and 89 points = B – Mitigation plan must be documented and approved by Matrix Safety Coordinator.
- Between 81 and 84 points = C – Mitigation plan must be documented and approved by Matrix Safety Coordinator; management approval in writing.
- Between 71 and 80 points = D – Mandatory commitment meeting with project management present; mitigation plan documented and approved by Matrix Safety Coordinator;

management approval in writing; trained subcontractor safety personnel on site during work regardless of number of workers.

- Less than 70 points = F – not to be used.

Once each subcontractor has been evaluated and scored, Matrix Safety Coordinator will provide management the scores/ranking. Matrix reserves the right to change a subcontractor's status to "Non-Approved" if the subcontractor shows insufficient progress towards accepted mitigation plan or other agreed upon criteria.

Subcontractor Involvement

Contractors are required to follow or implement the work practices and systems described below while performing work at Matrix worksites:

- Attend a safety orientation, pre-job meeting or kick-off meeting provided by Matrix prior to any work beginning.
- Monitor employees for substance abuse and report nonconformities to Matrix.
- Ensure personnel have the required training and competency for their work.
- Participate in Matrix tailgate safety meetings, job safety analysis or hazard assessments and on the job safety inspections.
- Perform a pre-job safety inspection that includes equipment.
- Report all injuries, spills, property damage incidents and near misses.
- Comply with onsite and Owner Client safety rules.
- Implement Matrix safety practices and processes, as applicable.
- Clean up and restore the worksite after the job is over.
- Ensure compliance with regulations at all times.
- Post job safety performance reviews shall be conducted for subcontractors.

Code of Safe Practices

General Safety Rules

- All persons shall follow this Code of Safe Practices and render every possible aid to safe operations.
- Failure to abide by the Code of Safe Practices may result in disciplinary action up to and including termination.
- Immediately report any unsafe conditions, accidents, injuries or illness to your Supervisor or Manager.
- If you are unsure of the safe method to do your job, STOP and ask your Supervisor. Ignorance is no excuse for a safety violation.
- No one shall be knowingly permitted to work while the employee's ability or alertness is impaired by fatigue, illness, and prescription or over the counter drugs. Employees who are suspected of being under the influence of illegal or intoxicating substances, impaired by fatigue or an illness, shall be prohibited from working.
- Never work while under the influence of an illegal or intoxicating substance, fatigued or ill.
- Anyone known to be under the influence of any drugs or intoxicating substances which impair the employee's ability to safely perform the assigned duties shall not be allowed on the job.
- Horseplay, scuffling, fighting, and other acts that tend to have an adverse influence on the safety or wellbeing of the employees are prohibited.
- Work shall be well planned and supervised to prevent injuries in the handling of materials and in working together with equipment.
- Keep your work area clean, free of debris, electrical cords and other hazards.
- Immediately clean up spilled liquids.
- Always notify all other individuals in your area who might be endangered by the work you are doing.
- Do not operate equipment that you are not familiar with. Do not attempt to use such equipment until you are fully trained and authorized.
- You are responsible for ensuring all safety guards are operable and in place. If they are not, STOP working and tell your Supervisor.
- Never bring firearms, weapons, illegal drugs or alcoholic beverages on company or customer property or the job site.
- A red tag system identifies equipment that is NOT to be operated, energized or used. All tag-out or lock-out notices and procedures must be observed and obeyed.
- Do not block exits, fire doors, aisles, fire extinguishers, first aid kits, emergency equipment, electrical panels, or traffic lanes.
- Do not leave tools, materials, or other objects on the floor that might cause others to trip and fall.
- Do not run on the work site or in the shop or office area.
- Do not distract others while working. If conversation is necessary, make sure eye contact is made prior to communicating.

- Employees shall not enter manholes, underground vaults, chambers, tanks, silos, or other similar places that receive little ventilation, unless it has been determined that it is safe to enter.
- Employees shall ensure that all guards and other protective devices are in proper places and adjusted, and shall report deficiencies promptly to the Supervisor or Manager.
- 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 thoroughly after handling hazardous substances, and follow special instructions from authorized sources.
- Gasoline or other flammable liquids 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 some openings, until it has first been determined that no possibility of explosion exists, and authority for the work is obtained from the Supervisor or Manager.

Electrical Safety

- Only trained, qualified, and authorized employees are allowed to make electrical repairs or work on electrical equipment or installations.
- All electrical equipment and systems shall be treated as energized until tested or otherwise proven to be de-energized.
- All energized equipment and installations will be de-energized prior to the commencement of any work. If the equipment or installation must be energized for test or other purposes, special precautions will be taken to protect against the hazards of electric shock.
- All equipment shall be locked out to protect against accidental or inadvertent operation when such operation could cause injury to personnel. Do not attempt to operate any switch, valve, or other energy-isolating device bearing a lock.
- Safety grounds shall always be used where there is a danger of shock from back feeding or other hazards.
- Polyester clothing or other flammable types of clothing shall not be worn near electrical circuits. Cotton clothing is much less likely to ignite from arc blast. Employees working on live circuits shall be provided Nomex or equivalent fire resistant clothing.
- Suitable eye protection must be worn at all times while working on electrical equipment.
- Always exercise caution when energizing electrical equipment or installations. Take steps to protect yourself and other employees from arc blast and exploding equipment in the event of a fault.
- All power tools will be grounded or double insulated. Tools with defective cords or wiring shall not be used.
- Metal jewelry should not be worn around energized circuits.
- Extension and temporary power cords must be heavy duty and grounded. Frayed or defective cords shall not be used.
- Electrical installations must be protected from accidental contact by enclosures or tight fitting covers.
- Circuits shall not be overloaded with equipment or extension cords.

Lock-out/Tag-out

- All machinery and electrical equipment shall be locked out and tagged prior to repair, cleaning, or adjustment unless power is necessary to perform the work. If so, other precautions, specified by your Supervisor, will be taken.
- Use your own lock and key. No one else should have a key for your lock. Destroy all duplicate keys.
- Maintain control of your key at all times to prevent unauthorized use.
- Never remove another employee's lock or energize tagged equipment.
- If multiple employees are working on the same equipment, each employee should install their own lock.
- Notify all affected employees that a lock-out/tag-out is required and the reasons for it.
- If the equipment is operating, shut it down by the normal stopping procedure (depress stop button, open toggle switch, etc.).
- Operate the switch, valve or other energy isolating devices so that the energy source(s) (electrical, mechanical, hydraulic, etc.) is disconnected or isolated from the equipment.
- Stored energy, such as that in capacitors, springs, elevated machine members, rotating flywheels, hydraulic systems, and air, gas or water pressure, etc. must also be dissipated or restrained by methods such as grounding, repositioning, blocking, bleeding down, etc.
- Lock-out all energy isolation devices with an individual lock.
- After ensuring that no employees are exposed and as a check of having disconnected the energy sources, operate the push button or other normal operating controls to make certain the equipment will not operate. **Caution: Return operating controls to neutral position after the test.**
- The equipment is now locked-out. Install red lock-out tag on operating controls.
- After repair is complete and the equipment is ready for testing or normal operation, check the equipment to see that all cover plates and safety devices have been reinstalled.
- When the equipment is clear, remove all locks and tags. The energy isolating devices may be operated to restore energy to the equipment.

Company Vehicles

- Only authorized employees are permitted to operate company vehicles. Do not let anyone else drive your company vehicle.
- Company vehicles are to be used for company business only. Personal, off duty, and family use is prohibited.
- Drive defensively and obey all traffic and highway laws.
- Always wear your seat belt, whether the driver or a passenger.
- Report all accidents as soon as possible to your supervisor and obtain a police report.
- Keys must be removed from all unattended vehicles and the vehicles must be locked, unless parking inside the facility.
- Do not jump from the cab or bed of company vehicles. Always use the stairs or a ladder.
- Inspect your vehicle and report any defects or operating problems to your supervisor so that repairs can be made.
- No smoking while refueling.

- If your driver's license is revoked or expired, immediately notify your supervisor and do not drive.

Ladder Safety

- Inspect the ladder before using it. If it is broken, throw it out. Never repair a broken ladder, get a new one. Keep portable stairways, ladders and step stools in good condition and use them only in a safe manner.
- Use the proper ladder for the job. Do not use A frame ladders as straight ladders. Make sure the ladder is tall enough to reach the work area. Do not use metal ladders for electrical work.
- Do not place ladders in passageways, doorways, or any location where they might be hit or jarred, unless protected by barricades or guards.
- Ladders should only be placed on hard level surfaces. Make sure the ladder feet are not placed on sandy, slippery, or sloping surfaces. Clean or sweep the area where the ladder feet will be and make sure the rubber feet are in good shape.
- Ladder rungs and steps must be kept free of grease, oil, mud, or other slippery substances.
- Arrange your work so you are able to face the ladder and use both hands while climbing. Do not carry tools or equipment while climbing a ladder. Climb the ladder, and then hoist the tools or equipment with a line or a hoisting device.
- Avoid temporary ladders. Always use a commercially made, construction grade ladder of the proper length for the work being performed.
- Secure portable ladders in place and at a pitch so the leveling indicator is in alignment or the distance from the wall to the base of the ladder is at least one foot for every four feet of height.
- Straight ladders shall be tied off at the top of the ladder to prevent slipping.
- Be aware of objects below you, move or cover sharp objects in case you fall.
- Do not stand on or work from the second rung from the top or above. Also do not reach too far from the ladder. Keep your belt buckle between the side rails.
- Extension ladders shall extend at least 36" above the level being accessed.
- On all ladders, do not step on cross bracing, which is not intended to be used for climbing.

Personal Protective Equipment (PPE)

- Use the correct PPE for each job assignment. If you don't know, ask.
- PPE shall be maintained in good condition and cleaned regularly.
- PPE shall be stored properly when not in use to protect it from damage.
- Damaged or broken PPE must be returned to your foreman for replacement.
- Hard hats must be worn on job sites at all times.
- ANSI-approved safety glasses must be worn when working with power tools, compressed air or gasses, chemicals or any other item that creates an eye injury hazard.
- Face shields with safety glasses are recommended when grinding or working with hazardous chemicals.
- Employees must wear industrial work shoes in the shop and on the job site. The shoes must have complete leather uppers and skid resistant soles and be in good condition. Steel toe

protection is recommended.

- Athletic style shoes, tennis shoes, open toe shoes, plastic or vinyl shoes, or shoes with decorative accessories are not allowed.
- Hearing protectors must be worn when working with loud equipment such as cut off saws, chain saws, air hammers or grinders.
- Back support belts should be worn for heavy lifting tasks. They do not help you lift more, but may provide some protection from back injuries.
- Be sure the protective clothing you wear will not hamper or restrict freedom of movement due to improper fit.
- Long pants of heavy-duty material must be worn. No shorts or sweat pants are allowed.
- Do not wear loose, torn or frayed clothing, dangling ties, finger rings, dangling earrings, jewelry items, or long hair unless contained in a hair net while operating any machine that could cause entanglement.
- If required, wear NIOSH approved respirators when applying adhesives, paint, welding, grinding or working with chemicals. Read the MSDS to find out which type of respirators is required. Facial hair may not be permitted in certain circumstances.

Hand and Power Tools

- Proper eye protection must be worn when using hand and power tools.
- Know your hand and power tool applications and limitations. Always use the proper tool for the job.
- Inspect cords and tools prior to use. Do not use tools that are faulty in any way. Exchange them for safe tools immediately.
- Power tools must be grounded or double insulated. All power tools are to be plugged into a grounded GFCI outlet.
- Do not use power tools in damp, wet or explosive atmospheres.
- Do not lift, lower or carry portable electrical tools by the power cord.
- Keep all safety guards in place and in proper working order.
- Use clamps or vises to secure work pieces.
- Do not force hand power tools. Apply only enough pressure to keep the unit operating smoothly.
- Return all tools and other equipment to their proper place after use.
- Unplug all power tools before changing bits and/or grinding disks.
- Never leave chuck keys in the tool during operation.
- Do not use a screwdriver as a chisel.
- Before using sledges, axes or hammers, be sure the handles are securely fastened with a wedge made of sound material.
- Do not use a handle extension on any wrench.
- Files should be equipped with handles and should not be used as a punch or pry.

Hazardous Materials and Chemicals

- Read all warning labels and MSDS before using any chemicals. The MSDS contain personal protective equipment and safety information and are available from your

Supervisor.

- Hazardous materials shall be handled in accordance with the MSDS and label. If protective equipment is required, use it.
- Eye protection must be worn when working with hazardous materials or chemicals.
- Mixing of chemicals is prohibited at all times unless required by the label. Before you mix be sure to review the MSDS.
- Always wash your hands thoroughly after handling chemicals and before eating or smoking, even if you were wearing protective gloves.
- Never use solvents for hand cleaning. Use the non-toxic hand cleaners provided.
- Store all hazardous materials properly in suitable containers that are properly labeled.
- Use chemicals only in well-ventilated areas.
- When using secondary containers, ensure that they are labeled as to their contents and hazards.
- Do not disturb any asbestos. STOP work and tell your Supervisor. If you are not sure, STOP and ask.
- Do not cut or weld stainless steel or galvanized metal without respiratory protection. These items create toxic fumes.
- Work with lead, asbestos, cadmium and other toxic compounds requires special precautions. Do not attempt to perform this work without special equipment and training.

Fire Prevention and Housekeeping

- Always take precautions to prevent fires which may be started from oily waste, rags, gasoline, flammable liquids, acetylene torches, improperly installed electrical equipment and trash.
- Firefighting equipment is to be inspected on a regular basis. All discharged, damaged, or missing equipment is to be immediately reported to a Supervisor. Tampering with fire equipment is prohibited.
- Access to fire extinguishers must be kept clear at all times. Make note of the location of firefighting equipment in your work area.
- Never use gasoline or flammable solvents for cleaning purposes.
- Smoking is prohibited within 20 feet of where flammable substances are present.
- In case of fire, employees shall consider the safety of themselves and other individuals before saving property.
- Keep your work areas free of debris. Remove useless material from the work area as fast as required to help reduce tripping hazards.
- Maintain awareness of potential hazards when walking about the work site.
- Keep tools, materials, and equipment out of walkways and stairways at all times.
- Sharp wires or protruding nails must be kept bent.

Traffic Safety

- All employees exposed to traffic hazards are required to wear orange flagging garments (shirts, vests, jackets) at all times.

- When possible, company vehicles are to be placed between the employees and traffic to prevent vehicles from entering the work area and hitting members of the crew.
- All traffic controls will be established in accordance with the State of California Manual of Traffic Controls for Construction and Maintenance Work Zones.
- Traffic controls are to be properly maintained throughout the workday. Signs and cones must be kept upright, visible and in their proper position at all times.

Welding and Cutting

- Make sure your welding equipment is installed properly and grounded and in good working condition.
- Always wear protective clothing suitable for the welding or cutting to be done.
- Always wear proper eye protection when welding, brazing, soldering or flame cutting. Once you remove your welding helmet, put on safety glasses.
- Keep your work area clean and free of hazards. Make sure that no flammable, volatile or explosive materials are in or near the work area.
- Handle all compressed gas cylinders with extreme care. Keep caps on when not in use. Make sure that all compressed gas cylinders are secured to the equipment carriage, wall, or other structural supports. When compressed gas cylinders are empty close the valve, install the cap, and return to correct bottle storage area.
- Store compressed gas cylinders in a safe place with good ventilation. Acetylene cylinders and oxygen cylinders should be kept at least 20 feet apart.
- Do not weld or cut in confined spaces without special precautions and your Supervisor's authorization.
- Do not weld on containers that have held combustibles or flammable materials.
- Use mechanical exhaust ventilation at the point of welding when welding lead, cadmium, chromium, manganese, brass, bronze, zinc, or galvanized metals. These metals are highly toxic and their fumes should not be breathed.
- Make sure all electrical connections are tight and insulated. Do not use cables with frayed, cracked or bare spots in the insulation.
- When the electrode holder or cutting torch is not in use, hang it on the brackets provided. Never let it touch a compressed gas cylinder.
- Dispose of electrode and wire stubs in proper containers since stubs and rods on the floor are a safety hazard.
- Use weld curtains to shield others from the light rays produced by your welding.
- Make sure all compressed gas connections are tight and check for leaks. Do not use hoses with frayed or cracked spots.
- Keep your leads orderly and out of walkways. Suspend them whenever possible.
- DO NOT WELD if leads or machine are in or near water.
- Make sure a portable fire extinguisher is nearby.
- Keep your work area clean and free of hazards. When flame cutting, sparks can travel 30-40 feet. Do not allow flame cut sparks to hit hoses, regulators, or cylinders.
- Use oxygen and acetylene or other fuel gases with the appropriate torches and tips only for the purpose intended.
- Never use acetylene at a pressure in excess of 15 pounds per square inch. Higher pressure

can cause an explosion.

- Never use oil, grease, or any other material on any apparatus or thread fitting in the oxyacetylene or oxyfuel gas system. Oil and grease in contact with oxygen will cause spontaneous combustion.
- Always use the correct sequence and technique for assembling and lighting the torch. Always use the correct sequence and technique for shutting off a torch.
- Check valves must be used on all compressed gas cylinders to prevent back flow of the gas.

Code of Safe Practices Receipt

This is to certify that I have received a copy of the Matrix Energy Services, Inc. Code of Safe Practices. I have read these instructions, understand them, and will comply with them while working for the company.

I understand that failure to abide by these rules may result in disciplinary action and possible termination of my employment with Matrix Energy Services, Inc..

I also understand that I am to report any injury to my Supervisor or Manager immediately and report all safety hazards.

I further understand that I have the following rights.

- I am not required to work in any area I feel is not safe;
- I am entitled to information on any hazardous material or chemical I am exposed to while working;
- I am entitled to see a copy of the Matrix Energy Services, Inc. Safety Manual and Injury and Illness Prevention Program; and
- I will not be discriminated against for reporting safety concerns.

Print Name

Sign Name

Date

Copy: Employee
File

Driving Safety Rules

Motor vehicle accidents continue to be the leading cause of workplace death in the nation. In 1995 alone, 1,329 workers were killed on the job, in auto accidents. That's one employee death every seven hours of every day.

Motor vehicle accidents are:*

- The leading cause of death at work;
- The leading cause of death for people age 15 to 24;
- The second most common cause of death for people age 25 to 44;
- The third most common cause of death for people age 45 to 64; and
- The fifth most common cause of death for all ages behind heart disease, cancer, stroke, and lung disease.

*Source: 1995 statistics from the National Institute of Occupational Safety and Health (NIOSH) and the Bureau of Labor Statistics (BLS).

Fortunately, auto accidents are often preventable. By driving defensively and using good judgment, you can significantly reduce your chances of being hurt or killed in a motor vehicle. The following defensive driving tips are designed to help you avoid accidents and injuries from your fleet operations.

These rules are mandatory for all employees driving Matrix Energy Services, Inc. vehicles.

- Personal and off duty use of Matrix Energy Services, Inc. vehicles is prohibited.
- Only authorized employees may drive Matrix Energy Services, Inc. vehicles. No other family members may drive company vehicles.
- Non-employee passengers are not permitted in Matrix Energy Services, Inc. vehicles at any time unless they are business related.
- Seat belts must be worn in Matrix Energy Services, Inc. vehicles at all times.
- No employee is permitted to drive Matrix Energy Services, Inc. vehicles while impaired by alcohol, illegal or prescription drugs, or over the counter medications.
- All accidents involving Matrix Energy Services, Inc. vehicles must be reported to the office immediately.
- Employees with two or more preventable accidents in a three-year period, or that obtain three points on their driving record, will be subject to a loss of their driving privileges or have their driving privileges restricted.
- The single biggest thing you can do to save your life is wearing your seat belt. Hundreds of studies over the years have proven, without a doubt, that seat belts save lives. This is true even in crashes involving fire and water submersion. Properly worn seat belts actually absorb crash forces that otherwise would be transferred to your body. If the seat belts in your vehicle are inoperative or defective, have them repaired or replaced immediately. You should wear the lap belt low across your hips and have the shoulder strap directly across

your chest. You also need to keep the belt tight. There should not be more than an inch between your body and the belt at any point.

- Get the big picture while driving. Keep your eyes aimed high and try to anticipate hazards and other drivers' mistakes. You should be looking well ahead of where you are. You should also always leave yourself an out in case the other driver does the unexpected.
- Maintain a safe following distance at all times. Approximately 1/3 of all auto accidents are rear-end collisions. You should be at least two seconds behind the vehicle in front of you to allow yourself sufficient time to stop. Do not tailgate. Following distances should be increased for larger vehicles or if in slippery or rainy conditions.
- Avoid passing on two lane roads. Head on collisions are the most common cause of fatalities. You should also turn on your headlights while driving on two lane roads. This helps oncoming traffic see and avoid you. Never pass another vehicle on blind turns or hills.
- You must be sober and alert at all times while driving. The use of drugs or alcohol while driving, or prior to driving, significantly increases your chances of having an accident. It should be at least eight hours from the time you take a drink until operating a vehicle. You should also avoid the use of prescription or over the counter medicines that make you drowsy.
- Inspect the vehicle for mechanical defects prior to each trip. Test your brakes as soon as you start out to insure they are properly operating. Worn tires can make your vehicle difficult to control or stop.
- Avoid dialing the phone, reading maps or other distracting activities while driving. These actions take your eyes off the road and often cause you to swerve. Pull over into a safe parking area before making that call.
- Never drive faster than road conditions warrant. Slow down when road conditions are poor (rain, fog, night) and never exceed posted speed limits.
- Always signal when changing lanes or turning.
- Use caution when passing any stopped vehicle, especially near intersections or cross walks.
- Aggressive driving has become a significant problem in the past few years. Just don't do it. Avoid tailgating, rapid lane changes, speeding, and hand gestures to bad drivers. You never know, they may be armed. If you are being tailgated, change lanes and let them pass. It's really not worth getting killed over.
- Intersection collisions are also a significant problem. These are often caused by someone running the red light. You should always be under control when approaching an intersection and be prepared to stop if the light changes.
- Slow down and look for trains at all railroad crossings. Even with modern signals and gates, hundreds of cars are hit by trains each year at grade crossings.
- Use your low beams while driving in fog and slow down. If you can't see, pull over into a safe parking area and wait for better visibility. Do not stop in the traffic lanes. You will almost certainly be hit by another vehicle if you do.
- Always walk behind the vehicle before backing. This will ensure that there are no people or objects behind you that you cannot see from the driver's seat. You should also make sure that all loads are properly secured to prevent them from moving. Numerous accidents are caused by objects that have fallen off company vehicles.

- Always signal well in advance when changing lanes or turning, and make sure to check your blind spot for other vehicles. Also, avoid driving in someone else's blind spot. If they can't see you, they don't know you are there.
- Yield the right of way until you are sure the other driver is going to stop. Just because you have the legal right of way doesn't mean you should always take it. Always yield the right of way to emergency vehicles.

Defensive drivers:

- Expect the unexpected;
- Anticipate bad driving by others;
- Look ahead for hazards;
- Always leave themselves an out;
- Always drive under control; and
- Obey the rules of the road.

Driving Safety Rules Company Vehicle Policy Receipt

This is to certify that I have received a copy of the Matrix Energy Services, Inc. Driving Safety Rules and Company Vehicle Policy. I have read these instructions, understand them, and will comply with them while driving company vehicles.

I understand that failure to abide by these rules will result in disciplinary action and possible suspension of my driving privileges.

I also understand that I am to report any accident to the office immediately.

Print Name

Sign Name

Date

Copy: Employee File