



EMPLOYEE & CONTRACTOR

HSE HANDBOOK

Employee & Contractor Handbook

Core Tenants of Service Excellence

- **Do it right the first time, or not at all.**
- **HSE is a core value.**
- **Operate within design limits safe procedures and practices.**
- **Assess the risk using the right tool.**
- **Involve the right people in your assessment of risk.**
- **Observe and intervene to keep everyone safe.**
- **Teamwork and communication are key to success.**
- **Meet or exceed the client's expectations.**
- **Comply with all applicable rules and regulations.**
- **We are all accountable for our actions.**
- **Recognize and reward outstanding performance.**

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1.0 **PURPOSE**

The intent of this handbook is to provide guidance to our Employees and Contractors regarding Baker Consulting, LLC (Baker, Baker Group) expectations of its workforce.

Health, Safety and Environment is of paramount importance an Baker. With this in mind, this handbook or passport has been prepared for all Employees and Contractors. Our goal is to prevent injury and to have the least possible impact on the environment, while exceeding the client's expectations. The plan to accomplish this goal is to create a culture in which every supervisor is an HSE Supervisor and every employee has the responsibility and authority over his or her own well-being.

The material in this handbook can be categorized as 3P; People, Process and Procedure. We need people with the right skills, attitudes and behaviors that properly use the process tools and follow the procedures to achieve Service Excellence.

Superior Service Excellence means that we execute a safe, dependable, efficient and environmentally proficient operation every day and every time. Our Core Tenants of Service Excellence are fundamental beliefs that can help us achieve business success.

1.1 ***QHSE POLICY STATEMENT***

The overall business success of Baker is contingent upon our commitment to deliver the highest quality services to our clients, while ensuring the health and safety of our people and the protection of the environment in which we live. We believe this commitment is in the best interests of our employees, clients, employees and company. Our

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philosophy is based on behavioral prevention. Every employee has responsibility for his or her own wellbeing, as well as others with whom they associate, and has the authority, responsibility and obligation to stop the job without question when there is uncertainty.

In accordance with this policy, Baker shall:

- Maintain a high level of attention to the improvement of the health and safety of our employees, clients, contractors and third-parties.
- Minimize the Environmental impact on the communities in which we work and live.
- Consistent service delivery and service quality that meets or exceeds our client's expectations.
- Establish and monitor performance indicators and set objectives for improvement.
- Influence behaviors in order to achieve the goal of zero incidents and non-conformances.
- Assess the risks associated with our equipment and activities in order to take the necessary precautions to minimize the potential impact.
- Preserve and improve our culture to continue a best in class reputation.
- Comply with applicable laws and regulations governing occupational HSE.
- Provide a healthy, safe and environmentally secure workplace for employees and other persons affected by our activities.

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- Require employees to comply with all applicable laws and governmental regulations relevant to their work.
- Require employees to report any HSE hazards, near misses, and incidents to their supervisor, or management, immediately.
- Empower employees with Stop Work Authority (SWA) with regard to any activity or situation they deem unsafe.

This level of excellence can only be achieved through the development and commitment of our employees with the active involvement and leadership of our management. Teamwork, training, risk management, communication and proper engineering produce the best people and best equipment. It is paramount to our image in the industry that we execute efficient, effective and most importantly, safe operations as a routine part of our daily operations.

1.2 STOP WORK AUTHORITY

All employees and Contractors have the authority to stop any job or task deemed unsafe by utilizing Stop Work Authority (SWA), it is your responsibility and obligation. Baker executives believe it is an obligation to use SWA and we expect our employees to use it when appropriate. SWA is the power to initiate a suspension of work activities based on an employee's concern about HSE issues associated with a particular job or work activity. Exercising this authority will allow an opportunity for everyone to reevaluate the situation or task to ensure everyone's safety before proceeding.

If an unsafe condition, behavior or act poses an imminent hazard, Employees and Contractors are expected to use the SWA and then report the hazard to their Supervisor.

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It shall be assumed by all levels of management that employees who exercise SWA are acting in the best interest of the company and there shall be no negative repercussions to Employees or Contractors for the legitimate use of SWA.



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1.3 MISSION STATEMENT

The work we do at Baker is driven by deep customer partnerships and defined by a relentless focus on safety, operational performance, and responsible growth. Our mission is to deliver nothing less than excellence in every aspect of our business and to build value for our customers and employees.

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1.4 PROCEDURE VIOLATIONS

Procedures play a vital role in relation to maintaining quality, health and safety, environmental and consistency of outcomes. There is however a body of evidence that indicates that the root cause of accidents can often be traced back to procedures not having been followed.

Any deliberate or negligent deviations from the rules, procedures, and the action was intentional, then this non-compliance is referred to as a 'violation'. This does not mean that the action was malicious in nature rather that the individual believed that the action was, for some reason, justified.

Baker recognizes that the underlying causes of procedural violations are not wholly the responsibility of the frontline employee, and that management have a key role to play in ensuring work is carried out in accordance with procedures.

Baker offers a useful definition of violations as being: Any deliberate or negligent deviation from the rules, procedures, instructions and regulations drawn up for the safe or efficient operation and maintenance of facilities or equipment.

Violations usually occur in particular circumstances, often when something goes wrong. They occur to a large extent when an individual is attempting to solve problems in unusual situations. The employee, in attempting to solve problems, violates a procedure (rule or policy) to achieve the desired goal. These violations are commonly associated with high risk, often because the consequences of the action are not fully understood or because the violation is known to be dangerous but seems unavoidable.

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To prevent such violations, Baker has provided all employees Stop Work Authority (SWA). All employees including management must utilize SWA when procedures are not clearly understood or when something goes wrong and a change of procedure is required to complete their task.

Responsibilities:

All employees follow Baker's policies and procedures at all times. If a situation changes that results in a policy or procedure that cannot be followed, utilize SWA and immediately contact your supervisor.

All managers must also follow Baker's policies and procedures at all times but also must provide visible leadership to ensure their employees are performing task as required by the company. Any violations of policies and procedures must be corrected immediately and discussed with the Division Manager.

1.5 EDUCATION AND TRAINING OF EMPLOYEES

Baker Division Managers and all Contractors shall assure that all employees within their area of responsibility are provided with the education and training necessary to perform a quality job in a safe and environmentally friendly manner.

Baker Division Managers and Contractors shall assure that information, instruction, motivation, and assistance are provided to all supervisory staff in order to protect the health and safety of all employees.

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2.0 JOB SAFETY ANALYSIS / HAZARD ASSESSMENTS

Job Safety Analysis (JSA) is an analytical tool for identifying hazardous conditions and potentially unsafe actions. The JSA focuses on an individual process or task and breaks it down into a step-by-step sequence. The best results are achieved when everyone at the site works together to conduct the JSA. This is an overview of the Job Safety Process:

1. Review the sequence of each job task (step-by-step).
2. Determine any possible hazards associated with each step (detrimental consequences).
3. Consider the effects of any simultaneous tasks.
4. Determine if special work permits are required.
5. Identify and review job specific procedures.
6. Ensure that procedures or controls are implemented to eliminate or minimize each risk.
7. Monitor the job for possible changes in working conditions that might require revision.

The issue of simultaneous operations is one that is often overlooked by supervisors and workers. It means that different work groups are engaged in related or unrelated activities that pose no danger independently. When these same activities overlap one another, risks are created that did not exist before. While the JSA process can address these situations, the analysis must be thorough enough to ensure that various circumstances are considered and safeguards are implemented.

There are numerous activities that are done on a routine basis. A generic JSA template can be developed for these activities and kept on

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file. It is important to understand that even a routine task will have unique hazards at any given time and place. A thorough analysis of the particular situation, equipment and personnel involved for each operation is paramount.

2.1 POTENTIAL HEALTH AND SAFETY HAZARDS

Each work activity shall be surveyed to identify the hazards potentially present. The following partial list of hazards is provided to assist the Division Manager:

- Motor Vehicle Operation
- Fire / Explosion / Flammable Chemicals
- Crane Operations
- Fall from Heights / Holes and openings in the floor
- Rotating Equipment
- Struck-by; such as moving, flying, swinging, dropped & rolling objects
- Chemical; including Benzene & H₂S
- Stepping, Lifting and Handling
- Caught In/Between
- Silica Exposure; Respiratory Protection
- Fracturing & Wireline Operations; Overhead objects
- Pressure
- Explosives
- Radiation Exposure
- Noise; Baker Hearing Protection program
- Electrical
- Compressed gases
- Other (i.e. hazardous material transport, sand transfer, pump maintenance (LOTO), confined spaces, energy sources, etc.)

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The environment in which work is conducted must also be considered when a hazard evaluation is performed. Below is a partial list of environmental conditions that must be considered:

- Temperature (extreme heat or cold)
- Weather (frequent rain and or high humidity)
- Noise (80 decibels or higher)
- High vibrations
- Working conditions (fumes, odors, dusts, mists, poor ventilation, etc.)

2.2 POTENTIAL THERMAL JOB HAZARDS

Each work activity shall be surveyed to identify potentially harmful environmental impacts. Consideration shall be given to discharges of chemicals (exhaust, effluents, wastes, etc.) and energy (heat, noise, radiation, light, etc.) into the atmosphere, land and water.

Consideration shall also be given to impacts resulting from the use of environmental resources.

Thermal risks must be assessed as to the degree of hazard and controls needed. Extreme hot or cold temperatures should be classified as Unrestricted hazard, Controlled hazard, or Restricted hazard. The work controls shall be classified as the following:

- Unrestricted Work – Conditions are adequate to mitigate the risks for acclimated workers. New employees or those who have been off work due to illness follow the next highest work control.
- Controlled Work – Additional controls are required to manage heat or cold risks.

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- Restricted Work – Conditions require enforced controls where work being performed.

Personnel taking medications that could cause complications to working in the heat, or those who are currently or recently have been unwell should discuss with appropriate medical personnel.

Medications that can make heat or cold stress effects more potent include:

- Anti-Inflammatory Analgesics (Prescription strength Ibuprofen, Acetaminophen)
- Tranquillizers (Lorazepam, Xanax, Halcion)
- Blood Pressure Medication (Altace, Accupril)
- Muscle Relaxants (Soma, Flexeril, Valium)
- Diuretics (Lasix, Dyazide, Aldactone)
- Stimulant (Caffeine, Ritalin, Zyban)

All employees shall limit consumption of alcohol and caffeine in off-hours prior to working in heat or cold to reduce the possibility of becoming ill due to exposure to adverse environmental conditions.

Consumption of energy drinks are discouraged while employees are performing their job duties including driving a company vehicle, performing duties at a well-site, temporary job-site or on Baker property.

Heat condition must be reviewed at any time but must be assessed when local conditions reach 29.5°C (85°F) and 30% humidity. Cold conditions must be reviewed at any time but must be assessed when

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local conditions reach below freezing 0°C (32°F) or a wind chill below this temperature.

3.0 EMPLOYEE SAFETY MEETINGS & RIR OBSERVATION PROGRAM

3.1 EMPLOYEE SAFETY MEETINGS

Effective safety programs in different industries all tend to share one common focus: Maintain a high level of safety awareness on the part of the individual and team. Companies recognize that having short, frequent safety meetings among a small, close group of workers is the best way to build and maintain safety awareness.

The Baker JSA process is perfectly suited for conducting a safety meeting with a built in step-by-step agenda. The JSA focuses on the immediate task at hand and the people that will be involved. Most importantly when the job is complete, there is documentation of the pre-job meeting. Clients with mature HSE cultures will request these types of documents as part of their auditing process.

Service Excellence can be achieved with zero injuries and incidents. It takes risk identification, planning and communication among all team members.

3.2 RIR OBSERVATION PROGRAM - EMPLOYEE OWNERSHIP

Incident reduction is dependent upon numerous factors, but one of the most important is reporting of hazardous situations and near incidents.

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Corrective actions must then be taken to address the deficiencies in order to prevent a future failure. Employee involvement is absolutely critical to the success of reporting and prevention.

The JSA and Incident Report – Investigation Tool is the primary vehicle for reporting a hazardous situation or near-miss, as well as to communicate corrective actions taken or issues that may still need to be addressed.

4.0 RESPONSIBILITY OVERVIEW

JSA's and Incident reports are to be filled out completely with participation of all parties involved in the operations at hand.

4.1 BAKER EMPLOYEE RESPONSIBILITIES

The following are Baker Employee's key responsibilities regarding this handbook:

- Be knowledgeable of the handbook and its requirements.
- Ensure that you the employee are aware of these company expectations and have a copy of the handbook available for reference.
- All employees are responsible for timely, accurate and complete reporting of near miss incidents, incidents resulting in injury, work related illnesses, equipment failure or property damage.

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- All employees are accountable to comply with Baker's Zero Tolerance rules. The eight Zero Tolerance rules are:
 1. Cell phone use restricted while driving as per Baker policies.
 2. Never exceed posted speed limits.
 3. Driver and passengers must wear seat belts at all times.
 4. Only licensed personnel may operate company vehicles.
 5. Do not enter high-pressure zone unless authorized.
 6. Follow all safe work practices when handling hazardous materials.
 7. Never use drugs or alcohol while working or driving.
 8. Wear correct PPE as per Baker policies.



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5.0 CELL PHONE / ELECTRONIC DEVICE USAGE

It is the policy of the company to restrict the usage of hand-held cell phones, handheld devices, pagers, digital assistants, laptops, or any other electronic communicative devices while operating a vehicle or while on any customer location or property. Hands-free cell phones may be used while driving, but with discretion. Electronic devices may not be used in areas where they may interfere with the operation of any company equipment or pose a safety hazard. Electronic device usage including hands-free operation of cell phone by Baker employees on the premises of any customer location or property is strictly prohibited while operating a vehicle; unless explicitly approved by the customer.

Failure to comply with this policy may lead to disciplinary action up to, and including, termination of employment.

6.0 VEHICLE OPERATION

6.1 *DRIVING SAFETY*

There are many hazards associated with our job duties here at Baker, but statistically, the most dangerous task we perform is operating a motor vehicle (refer to the Baker Driving Safety & Journey Management standard for requirements).

Vehicle Inspections:

Drivers are required to perform three types of vehicle inspections:

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- **Pre-Trip Inspection:** All drivers must be satisfied that all equipment is in proper working condition prior to operating any motor vehicle.
- **In-Route Inspection:** DOT drivers must re-examine their vehicle when the vehicle is parked for any amount of time. After 3 hours or 150 miles of travel, whichever occurs first.
- **Post-Trip Inspection:** DOT drivers are required to complete a written report (DVIR) on each commercial motor vehicle at the end of day, or when they are finished driving that vehicle for the day.
- **Never operate a motor vehicle with mechanical defects until it is repaired and in good working order. Drivers are responsible for communicating needed repairs for vehicles.**

Transported cargo must be secured in a manner that prevents any loss or spillage during transportation. All cargo securement devices must be inspected for damage prior to use with confirmation that correct Working Load Limits are utilized for use in securing any cargo. Minimum of 2-securement devices (tie-downs) for cargo is required, also to be utilized every 5ft. in length of any article being transported as cargo. Tie-downs must be attached in a manner that prevents them from becoming loose, unfastened, or released during transport. All loads being transported are required to be re-inspected for securement within the first 25-miles of travel and again every 2-hours or 100-miles of travel, whichever occurs first.

Driving is an acquired skill consisting of learned habits. Baker utilizes a driving safety approach, referred to as Commentary Driving Skills, consisting of techniques developed by professional driver trainers. Here, in abbreviated form, are some of the key elements of this driver

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training (refer to the Baker Driving Safety & Journey Management standard for requirements).

According to the training professionals, good drivers under good conditions do not allow five common distractions to inhibit their good habits:

- **Roadway Scenery:** Anything that holds the driver's attention too long – an accident scene, people on the road side, bright lights at night.
- **Direction or Route Problems:** Maneuvering in or out of a parking place, difficult vehicle maneuvering on roadways, watching for route signs or addresses, following directions
- **Mental Disturbances:** Boredom, fatigue, illness, personal problems, anything that causes the mind not to perceive what the eyes sees.
- **In the vehicle:** Cell phone use, conversation with other occupants, radio, or use of other electronic devices, eating or drinking.
- **Unaccustomed Driving Tasks:** City driving or rural driving, different driving terrain, speeds above habit, weather.

There are five seeing habits that can make it possible for you to never be involved in a vehicle accident:

1. Clear a path ahead. Look far enough ahead to plan, 1 to 2 city blocks or 12 to 15 seconds at highway speeds.
2. Keep your safety cushion all around your vehicle. Stay back and see it all.
3. Train your eyes. Keep them moving and check all around.
4. Plan escape routes. If something goes wrong, know where to go.

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5. Communicate in traffic, tap your horn if needed. All vehicle lights are required to be on when being operated.

Remember the following driving techniques discussed in the Baker defensive driving class:

- Speed is the number one factor in incidents – obey traffic laws and slowdown in bad weather. Slow by 1/3 for rain, half for snow, and ice stop.
- Stop in traffic – leave one car length between you and the car in front.
- Intersections – check left, right, left.
- Quick 1, 2, 3 delay after vehicle ahead starts moving.
- Use proper following distance – 2 seconds' reaction time plus 1 second for every 10 ft. of your vehicle length (light duty pickup- 2 seconds' reaction time + 2 seconds (20 ft. vehicle) = 4 seconds following distance).
- Increase following distance in bad weather.
- Conduct five to eight seconds' mirror check.
- Approaching stale green lights – point of decision.
- Scan the steering wheels of parked vehicles.
- Wheel to ground reference.
- Positive glance before curb pull out.
- Establishing eye contact with other drivers.
- Rough terrain – slow down and watch curves.
- Equipment abuse will not be tolerated.
- Instruments and gauges – always scan periodically.
- Trained eye lead-time.

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6.2 JOURNEY MANAGEMENT

Journey Management (JM) is an essential tool in driving safety. It is a process in which you assess the risks of the specific trip, develop both prevention and mitigation steps and implement a plan to manage the trip, develop both prevention and mitigation steps and implement a plan to manage the trip. All commercial vehicle movement require JM process to be completed. This can include a verbal recognition, inspections, JSA, logs, or permits.

Two or more vehicles constitutes a convoy which must be addressed in the Journey Management plan. There should be a convoy leader that manages the trip. Vehicles should travel within a reasonable distance of each other. Stops are planned and taken together. For trips to well-sites, only approved routes documented on the Baker Mobilization plan for the appropriate customer and well-site shall be used.

6.3 SPEED FOR CONDITIONS

A significant percentage of accidents are caused by excessive speed. At 60 MPH, you are traveling 88 ft. per second. When you increase to 70 MPH, the distance is 103 ft. per second. Of course, the stopping distance increases with speed. Wet pavement, mud, snow or ice further increases the stopping distance. Slow down and consider the road conditions. Never operate your vehicle in excessive speeds, always be a defensive and courteous driver.

6.4 WINTER DRIVING

Winter driving conditions are unpredictable, however most techniques to drive safely in winter conditions are common sense. Most

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importantly if you don't have to drive in these conditions don't. If you are not comfortable driving in adverse weather advise your supervisor. Follow the safety tips stated below at all times in winter conditions:

- Make sure washer fluids and coolant fluids are topped off.
- Keep speed as slow as conditions require.
- Brake gently and only in straight stretches, never brake while cornering.
- Increase following distance, which means to slow down.
- Be prepared for under steer or over steer conditions and know how to get out of them.
- Be prepared to utilize ABS system if vehicle is so equipped and know how to use it.
- While accelerating, do so gently and progressively.
- Aggressive acceleration can easily break traction leading to loss of steering control in front wheel drive cars or an over steer slide in rear wheel drive cars.
- If you do notice wheel spin let off the gas and reapply gently.

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6.5 *USE OF VEHICLES*

Vehicles essential in accomplishing job duties are expensive and may be difficult to replace. When using property, employees are expected to exercise care, perform required maintenance and follow all operating instructions, safety standards and guidelines. Use of unassigned company owned equipment and vehicles for personal use, without prior authorization, is strictly prohibited and can result in termination of employment.

The Supervisor shall be notified if any vehicle(s) appear to be damaged, defective or in need of repair. Prompt reporting of damages, defects and the need for repairs could prevent incidents and possible injury to employees or others.

Employees assigned company vehicles are responsible for the timely maintenance and upkeep of the vehicle (i.e. oil and filter changes, wash, tire rotation, etc.)

The improper, careless, negligent, destructive, or unsafe use or operation of vehicles, as well as excessive or avoidable traffic and parking violations, can result in disciplinary action up to, and including, termination of employment.

Assuming no Type A or Type B violations, Baker will use the following table to assess the acceptability of applicants or employee's motor vehicle records (MVR):

- One or more Type A Violation in a 36-month period (applicant: not eligible for hire / employee: suspension)

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- Two or more Type B Violation in a 36-month period (applicant: not eligible for hire / employee: suspension)
- Three or more Type C Violation in a 36-month period (applicant: not eligible for hire / employee: probation or suspension)
- Type B Violations and Type C Violations in a 36-month period (refer to Table 1 below)

Type A: Includes, but not limited to, DWI, DUI, OUI, refusing a substance test as required by law, charges of reckless driving, manslaughter, hit & run, eluding police, any felony arising from the use of a vehicle, driving while license is suspended or revoked, drag racing, attempting to elude a police officer, leaving the scene of an accident or any other Class A (first degree) offense arising from the use of a vehicle.

Type B: Includes, having a license suspended for any reason, having any other Class B or C (second and third degree) misdemeanor traffic violations.

Type C: Includes all moving violations not in Types A or B such as: speeding, improper lane change, failure to yield, running stop lights or signs.

Table 1	No Minor Violations	One Type C Violation	Two Type C Violations	Three Type C Violations
No Accidents	Acceptable	Acceptable	Acceptable	Probation or Suspension
Once Accident	Acceptable	Acceptable	Probation or Suspension	Suspension
Two Accidents	Probation or Suspension	Probation or Suspension	Probation or Suspension	Suspension
Three Accidents	Probation or Suspension	Suspension	Suspension	Suspension

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6.6 *VEHICLE INCIDENT REPORTING*

Employees who receive a citation / warning or who are involved in an incident involving company vehicles or property damage shall immediately report verbally to their supervisor and/or HSE immediately. Employees must contact local law enforcement and submit a police report for any and all vehicle crashes regardless if the crash occurred or did not occur on company business; unless instructed otherwise by their Supervisor or HSE.

Any driver involved in a motor vehicle accident must complete a drug & alcohol test following any vehicle crash. Generally, a non-DOT drug & alcohol test is only required but a DOT drug & alcohol test is required when operating a commercial motor vehicle and the accident results in a fatality or bodily injury with immediate medical treatment away from the accident scene or disabling damage to any motor vehicle requiring tow away.

6.7 *DRIVING POLICY*

No driver shall operate a company vehicle at speeds greater than those permitted by the jurisdictions in or through which the vehicle is being operated. The Division Manager shall ensure that all drivers have sufficient time to travel the distance required without causing the vehicle to operate at speeds greater than the speed limit or those permitted by the jurisdiction in or through which the vehicle is being operated.

The driver and all passengers must wear available seat belts at all times.

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To be qualified to operate a motor vehicle, drivers required wearing corrective lenses and/or hearing aids in order to meet the physical requirements of state and/or federal authorities shall wear corrective lenses and/or a hearing aid at all times while driving a company vehicle.

No employee shall drive/operate a company vehicle unless they have been trained, qualified and receive written authorization by the company. All company vehicles shall be operated in accordance with federal, state and local laws, ordinances and regulations.

No driver shall operate a company vehicle when the ability or alertness of the driver is impaired or likely to become impaired through fatigue, illness or any other cause as to make it unsafe for him/her to begin or continue to operate the vehicle.

Keys must be removed from vehicles when not in operation; unless required by the company or the customer.

No driver shall operate a company vehicle or be on duty while in the possession of or under the influence of the alcohol or drugs, including any other materials prescribed by company standards. All company vehicles should have the headlights on while the vehicle is in motion or on a public/private road, day or night.

6.8 VEHICLE EMERGENCY KIT FOR NON-DOT VEHICLES

Each company vehicle shall contain the following Vehicle Incident Kit:

- One (1) or more copies of the Vehicle Incident Report Form
- Optional – one (1) six (6) person First Aid Kit

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- Optional – one (1) 2 ½ - pound or greater ABC Dry Chemical Fire Extinguisher

All commercial motor vehicles (DOT) shall contain the following:

- 3-Red reflective triangles
- One (1) flashlight with spare batteries
- One (1) 10-pound ABC Dry Chemical Fire Extinguisher or greater for all commercial motor vehicle also, spare electrical fuses.
- One (1) six (6) person First Aid Kit

7.0 GENERAL HEAVY MACHINERY OPERATION (INCLUDING FORKLIFTS, TELEHANDLERS AND FRONT LOADERS)

Only trained and licensed (certified) employees are authorized to operate any heavy machinery for the company. Employees must be licensed for each type of heavy machinery required to operate.

Each operator must do the following whenever required to operate heavy machinery:

- Check machinery at the beginning of each shift to ensure that the parts, equipment, and accessories are in safe operating condition.
- Repair or replace any defective parts or equipment prior to use
- Do not operate machinery in reverse with an obstructed rear view unless it has a reverse signal alarm capable of being heard

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above ambient noise levels and a spotter indicates that it is safe to move

- Equipment should have roll-over protection and protection from falling debris hazards as needed
- Prior to permitting equipment onto an access roadway or grade, verify that the roadway or grade is constructed and maintained to safely accommodate the equipment and vehicles involved
- Do not modify the equipment's capacity or safety features without the manufacturer's written approval

8.0 **HIGH PRESSURE ZONES / RESTRICTED AREAS (NO-GO ZONES)**

Any workspace having a potential for high pressure release should reference Baker Standard 4.0. Other hazardous conditions such as wireline or crane operations, shall be appropriately blocked by physical barriers suitable to maintain a safe zone. Barriers shall also contain appropriate warning signage. Only authorized employees are permitted in any No-Go Zone.

9.0 **SAFE WORK PRACTICES WHEN HANDLING HAZARDOUS MATERIALS**

When working with or transporting hazardous materials, employees must follow all Baker safe work practices and all local, state or federal government regulations including the following:

- All employees following safe work practices appropriate for the hazardous material followed at all times.
- Clear area of non-essential personnel.

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- Ensure all personnel follow the safe handling procedures found in SDSs.
- Use proper mixing procedures.
- Wear appropriate personal protective equipment, including respirators and eye, face and hearing protection.
- PPE specific to the chemical hazard (rubber gloves, goggles etc. and acid kit available if necessary) refer to SDS.
- Employees are aware of hazardous chemicals on the jobsite that are associated with Baker operations.
- Employees know how to obtain the SDS of hazardous chemicals on the jobsite that are associated with Baker operations.
- Employees are aware of hazardous chemicals on the jobsite that are associated with the operations of other employers and customers.
- Employees know how to obtain the SDS of hazardous chemicals on the jobsite that are associated with other employers and customers.
- Use secondary containment per local SPCC plan & Baker standards.
- Use Vactron to empty residual chemical prior to removal of hoses.
- Spill kits available per inventory list.
- Camlocks are secured and safety pin utilized.
- Chemicals are properly segregated and stored in properly marked and labeled containers.
- Buffer solution (soda ash) available on location when acid being used.

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10.0 DRUGS OR ALCOHOL. POSSESSION OF FIREARMS. WORKPLACE VIOLENCE

The company is a drug-free company and prohibits the possession and use of drugs (controlled substances) and alcohol on its premises, including parking lots.

All employees are subject to drug & alcohol testing including: pre-employment, post-accident, reasonable suspicion, random and return to work.

10.1 DRUG AND ALCOHOL POLICY

The company has a vital interest in maintaining a safe, healthful and productive work environment for our employees and others on company property. Being under the influence of an illegal drug or alcohol on the job poses serious safety and health risks to the user and to all those who work with the user. The use, sale, manufacture, purchase, transfer, concealment, or possession of an illegal drug in the workplace, and the use, possession, or being under the influence of alcohol pose unacceptable risks for safe, healthful, and efficient operations. The company recognizes that its own health is dependent upon the physical and psychological health of its employees and Contractors. Accordingly, it is the right, obligation and intent of the company to maintain a safe, healthful and efficient workplace for all of its employees and Contractors and to protect their property, equipment, operations, and reputation.



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The company further recognizes contractual obligations to its clients for the provision of services that are free of the influence of illegal drugs and alcohol, and will endeavor through this policy to provide such drug-free services. Employee and Contractor cooperation with and consent to company and client testing, searches and inspections are a condition of employment. Violation of company and/or client policy, including refusal to test, search and inspection may result in removal from company/client property and disciplinary action, up to and including discharge.



The company further expresses its intent through this policy to comply with all applicable drug and alcohol related rules, laws and regulations that relate to the maintenance of a workplace free from illegal drugs and alcohol. The company further requires that all employees report any known violations of this policy or drug convictions by co-workers.

10.2 DRUG AND ALCOHOL TESTING RESULTS

Drug and alcohol testing results, both positive and negative, are confidential and shall be stored in a locked filing cabinet. Representatives of the Human Resource Department, the HSE Department and the Division Manager are authorized to view drug and alcohol testing results.

10.3 MEDICAL AND EXPOSURE RECORDS

Employee Medical and Exposure Records shall be preserved for at least thirty (30) years past the termination date of the employee with whom they are associated. The records may be preserved at a

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company facility or at the facility of a third party medical care provider. If records are preserved at a third-party facility, the facility must be notified in writing that the company expects the records to be maintained indefinitely and that no records should be destroyed or transferred without the consent of the company.

Employee Exposure Records include any record containing any of the following kinds of information:

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

Employee Medical Records means any record concerning the health status of an employee which is made or maintained by a physician, nurse or other health care personnel or technician, including:

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- Medical and employment questionnaires or histories, including job description and occupational exposures.
- The results of medical examinations (i.e. pre-employment, pre-assignment, periodic, or episodic) and laboratory tests, including chest and other X-ray examinations taken for the purpose of establishing a base-line or detecting occupational illnesses and all biological monitoring not defined as an Employee Exposure Record.
- Medical opinions, diagnoses, progress notes, and recommendations.
- First Aid records.
- Descriptions of treatments and prescriptions.
- Employee medical complaints.

Employees and their designated representatives shall be allowed access to Employee Exposure and Medical Records, as per OSHA 29 CFR 1910.1020.

10.4 PRESCRIPTION MEDICINE

Any employee who is using prescription drugs or over-the-counter drugs which may impair his/her ability to safely perform his/her job or which may affect the safety or well-being of others, shall provide the company as soon as such use begins, with a letter from the prescribing physician as to the probable effects of the drug on work performance. This information will be maintained confidentially by the company and limited only to those with a need to know.

An employee may be allowed to continue normal job responsibilities if the company determines that the employee's job performance will not

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be significantly affected and/or the employee will not pose a threat to his/her safety or the safety of others.

If the company determines that impairment or a safety threat exists, the company Management may direct that the employee be temporarily relieved, given a leave of absence or take sick leave, or reassigned to a lesser duty.

This policy applies to all employees and contractors of the Company.

10.5 POSSESSION OF WEAPONS

Any type of weapon whatsoever including, but not limited to firearms, switchblades or other types of knives, chemicals, explosives, and ammunition, and any and all other objects carried by any individual for the purpose of injuring or intimidating others is strictly prohibited from being carried onto company premises, including parking lots. In accordance with customer guidelines, certain facilities may implement a ban on all types of weapons including firearms, knives, and pocketknives. Customer policies must be adhered to at all times. Any company facility that is specifically designated by signage in accordance with local, state or federal law banning weapons, must be followed by all employees and visitors.

10.6 WORKPLACE VIOLENCE

The company is committed to preventing workplace violence and maintaining a safe work environment. Given the increasing violence in general, the company has adopted the following guidelines to deal with intimidation, harassment or other threats of (or actual) violence that occur during business hours or on its premises.

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All employees, including Supervisors and temporary employees, should be treated with courtesy and respect at all times. Employees are expected to refrain from fighting, "horseplay" or other conduct that may be dangerous to others.

Conduct that threatens, intimidates, or coerces another employee, customer or a member of the public at any time, including off-duty periods, will not be tolerated. This prohibition includes all acts of harassment, including harassment that is based on an individual's sex, race, age, or any characteristic protected by federal, state or local law. All threats of (or actual) violence, both direct and indirect, shall be reported as soon as possible to a Supervisor; or to the department head, or Human Resources if the complaint involves the Supervisor or Manager. Every reasonable attempt will be made to protect confidentiality.

This includes threats by employees as well as threats by customers, vendors, solicitors, or other members of the public. When reporting a threat of violence, the report shall be as specific and detailed as possible. All suspicious individuals or activities shall also be reported as soon as possible to a Supervisor. Employees shall not place themselves in peril. If an employee sees or hears a commotion or disturbance near their workstation, they shall not try to intercede or see what is happening.

The company shall promptly and thoroughly investigate all reports of threats of (or actual) violence and of suspicious individuals or activities. The identity of the individual making a report shall be protected as much as is practical. In order to maintain workplace safety and the integrity of its investigation, the company may suspend employees, either with or without pay, pending investigation. Anyone determined to be

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responsible for threats of (or actual) violence or other conduct that is in violation of these guidelines shall be subject to prompt disciplinary action, up to and including termination of employment.

The company encourages employees to bring their disputes or differences with other employees to the attention of their Supervisors before the situation escalates into potential violence. The company is eager to assist in the resolution of employee disputes and shall not discipline employees for raising such concerns.

11.0 PERSONAL PROTECTIVE EQUIPMENT (PPE)

11.1 BAKER WORKSITES

Baker Employees and Contractors shall wear all PPE required by the customer and comply with the following requirements:

- The Supervisor shall conduct a Pre-job Hazard Assessment (located Hazard I.D. form) of their worksite before starting each job, every day before starting work and thereafter whenever conditions change
- The PPE requirements of each worksite shall be determined by an analysis of a Pre-job Hazard Assessment but standard PPE for Baker Worksites are hard hat, steel-toe shoes, safety glasses, FR clothing, hearing protection, and gloves.
- The wearing of PPE appropriate to the type of work being conducted is required of all personnel as a condition of employment and as a condition of entry onto all Baker worksites and vessels, facilities, vehicles, and offices.

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11.2 BAKER FACILITIES

The PPE requirements of each Division shall be determined by an analysis of the Certification of PPE Hazard Assessment. The standard PPE for Baker Facilities are hard hat, steel-toe shoes, safety glasses, FR clothing, hearing protection, and gloves.

The wearing of PPE appropriate to the type of work being conducted is required of all personnel as a condition of employment and as a condition of entry onto all

Baker facilities, vehicles, and offices. Specific types of PPE may be required from time-to-time depending on the type of work being conducted and the materials being handled. All Employee and Contractor owned equipment shall fall under the same requirements as those supplied by the company. Any PPE damaged or defective shall not be used.

Each Baker HSE Manager shall conduct a Certification of PPE Hazard Assessment of their Division(s) at least once a year in January or when conditions change, whichever is most frequent. The Certification of PPE Hazard Assessment may be a separate document or it may be a component of Hazard Assessment performed to satisfy another company requirement. Certification of PPE Hazard Assessment may be performed based on specific activities or job titles.

Once the Certification of PPE Hazard Assessment is completed it shall be kept on file. The certification must include:

- A certification statement
- The name of the person who performed the Certification of Hazard Assessment

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- The name of the Division
- The date of the PPE Hazard Assessment

11.3 TRAINING

All Employees and Contractors shall be trained in the following:

- When PPE is necessary
- What PPE is necessary
- How to properly wear PPE
- PPE limitation
- Proper care and maintenance of PPE

Employees will receive PPE training when:

- The employee is first hired
- The employee is appointed to a new job assignment
- The employee is exposed to new substances, processes, standards, equipment, etc. that represent a new hazard to the employee
- The employee demonstrates lack of use or improper usage

Documentation of training will be given to the employee and maintained on file. Certification must include employee name, date of training and the subject of training. Contractors must supply Baker proof of their employees training upon request in a timely manner.

11.4 INSPECTION, MAINTENANCE AND FIT TESTING

All PPE worn by Baker personnel and Contractors must be in good condition, properly maintained and of the proper fit. Inspection of

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equipment and testing for proper fit shall be conducted prior to use (e.g. respirators must be inspected and cleaned before each use). All PPE shall be provided, used and maintained in a sanitary and reliable condition. Employees shall be tested for proper fit at least on an annual basis.

11.5 HEAD PROTECTION

All Employees and Contractors shall wear hard hats wherever head injury hazards exist. Hard hats shall be made of plastic or other non-metallic/non-conductive materials and designed to hold chin straps. ANSI Z-89 Class "E" hats have been selected for use because of their protective qualities and no other types may be worn on the job. Hair long enough to constitute a hazard while working around moving machinery or rotating tools and equipment must be secured by a net or tied back. Hairstyles that make it impossible to wear a hard hat properly are not permitted. When working at heights the use of chin straps shall be considered in the Job Safety Analysis and chin straps shall be used when applicable.

11.6 SAFETY SHOES OR BOOTS

ASTM F2413-05 safety shoes or boots (steel-toes) must be worn in designated areas. Specialized protective footwear, such as shoes with well-defined heels, metatarsal protection or puncture resistant soles, may be required to perform certain task.

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11.7 WORK CLOTHING

Only work clothes that are close-fitting and in good repair will be worn by Employees and Contractors on the job. Clothing shall be kept clean by frequent washing to reduce the health and fire hazard of wearing oily clothes. Where required, Baker shall supply flame-retardant clothing. Loose fitting jewelry (i.e. necklaces, bracelets or rings) pose a hazard around machinery and will not be worn while on the job: Watches should have band that will release.

All employees working at customer locations or worksites must wear Company approved FR clothing on the outer most layers. All approved FR clothing must be in acceptable condition when traveling in company vehicles and reporting to work. Acceptable condition is defined as no excessive wear or staining, no holes, recently laundered or clean and no unapproved alterations.

11.8 CHEMICAL PROTECTIVE GARMENTS

Chemical protective garments must be selected based on the specific chemical being used and the task being performed. Chemical protective garments must be maintained and inspected according to manufacturer's requirements prior to use in order to provide the maximum protection. Reusable chemical protective garments must be properly decontaminated after each use. Heat stress is a significant problem associated with wearing chemical protective garments. Precautions may be necessary to protect workers from the effects of heat stress (i.e. vortex cooling units or ice jackets). Workers wearing chemical protective garments must be closely monitored for signs of heat stress; heat exhaust or heat stroke can develop in a matter of minutes.

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11.9 EYE PROTECTION

All eye and face protection shall be ANSI Z-87 approved. All employees shall be issued spectacle-type safety glasses to be worn whenever special purpose eye protection is called for. Contractors will be responsible for issuing approved safety eyewear to their employees. A person near other persons who are doing work requiring the use of safety goggles must also wear goggles. Any type of eye protection must be adjusted properly to the face to ensure maximum protection and comfort. Impact-type goggles or safety glasses and face shields shall be worn when scraping, buffing, grinding, hammering, or when engaged in any activity involving hazards to the unprotected eye by flying or falling particles or objects. Complete coverage eye protection must be worn when dust hazards exist and when using any type of pneumatic tool. Splash-proof chemical goggles must be worn when handling hazardous chemical liquids, powders or vapors such as cleaning materials with chemical solutions or in any other operation where the eyes may be exposed to hazardous chemicals in either liquid or solid form.

Wearers of contact lenses must inform the Division Manager and/or fellow employees of the fact so that proper emergency treatment can be given if necessary.

"Antifogging" compounds for lenses are available and may be used to maintain clear vision where fogging conditions exist.

The Company will reimburse employees for prescription safety glasses per the company PPE reimbursement policy.

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11.10 HAND PROTECTION

Impact gloves or other protective gloves mandated for a particular task (see Facility PPE Hazard Assessment) will be worn. Chemical protective gloves must be worn when handling chemicals that pose a hazard to the skin.

Electrical insulating gloves are also necessary in certain situations including electrical work. Regular chemical protective "rubber gloves" are not suitable for electrical work. Electrical insulating gloves must be periodically tested to verify that they retain their protective characteristics.

11.11 WINTER GEAR

- All outside jackets or other garments must be company provided or approved.
- All cold weather head protection such as hard hat liners, beanie caps, face mask or balaclava must be FRC.
- Ice cleats or chains should be used when working in icy conditions.
- Refer to the following Table for winter gear selection:

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Table 2 Wind Chill Hazards and What to Do – All Outer Wear must be FRC Material

Wind Chill (°F)	Exposure Risk	Health Concerns	What to Do
20 to 32	Low risk	<ul style="list-style-type: none"> Uncomfortable 	<ul style="list-style-type: none"> Dress in layers of warm clothing. Cover all exposed skin (well-site operations must be FRC) Stay dry. Keep active
-15 to 20	Moderate risk	<ul style="list-style-type: none"> Risk of hypothermia and frostbite outside for long periods without adequate protection. 	<ul style="list-style-type: none"> Dress in layers of warm clothing Cover all exposed skin (well-site operations must be FRC) Wear a face mask and insulated, waterproof footwear Stay dry Keep active
-16 and Below	High Risk: exposed skin can freeze in	<ul style="list-style-type: none"> High risk of frostnip and frostbite: Check face and extremities for numbness or whiteness. 	<ul style="list-style-type: none"> Be careful. Dress very warmly in layers of clothing, with an outer layer

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10 to 30 minutes	<ul style="list-style-type: none">• High risk of hypothermia if outside for long periods without adequate clothing or shelter from wind and cold.	<p>that is FRC and wind-resistant.</p> <ul style="list-style-type: none">• Cover all exposed skin• Wear a face mask and insulated, waterproof footwear.• Be ready to cut short or cancel outdoor activities.• Stay dry.• Keep active.
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12.0 General Facility Safety Rules

The following General Baker Facility Safety Rules pertain to the entire facility and must be followed by all employees. Any exceptions must be approved by the facility manager. Failure to follow these safety rules will result in possible disciplinary action.

- Follow all safety rules and procedures applicable to the work being performed.
- Seat belts must be used anytime a motor vehicle or forklift is in operation.
- Smoking is allowed in designated areas only.
- 5 M.P.H. maximum speed limit must be followed at all times.
- Reverse parking or first move forward only on company property.
- Review all jobs before performing them to assure they can be performed safely (perform hazard assessments and JSA's). If

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any doubt exists about job safety, do not perform the job until supervision provides a way to perform the job safely.

- Perform only those jobs, and operate only equipment, authorized by the company.
- A spotter must be utilized during forklift operations in areas not designated by signage as a forklift operating area.
- A spotter must be utilized when backing heavy duty equipment such as tractor-trailers.
- Wear the personal protective equipment prescribed by General Facility Safety Rules (hard hat, steel toe shoes, safety glasses, approved flame retardant clothing & proper gloves for the task) and specific job procedures. In addition, follow PPE requirements communicated on warning signage within the facility.
- Inspect tools and equipment prior to use and report any defects to supervision for repair before using.
- Assure safety guards and devices on machinery and equipment are functioning properly before use.
- Promptly report all incidents including injuries, no matter how minor, to supervision so prompt action can be taken to provide the necessary medical attention and prevent recurrence.
- Maintain a clean and orderly workplace by providing needed materials in assigned locations and removing all unnecessary items.
- Lift, push, pull and handle only those things you are physically capable of handling safely while following the prescribed procedure.
- Horseplay often results in injury and will not be tolerated. Prompt disciplinary action will be taken.
- Lockout/Tagout procedures shall be followed by all authorized employees to protect themselves from hazardous energy while

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servicing and maintaining equipment, machines and processes. Remember Lockout/Tagout applies to all sources of energy sources including electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other sources in machines and equipment.

- Know the potential hazards associated with chemical substances and how to protect yourself before handling chemicals.
- Report any detected safety or health hazards promptly to supervision so effective corrective measures can be taken; such as improper guarding or poor ventilation
- Use of alcohol and non-prescription drugs on the job is prohibited. Use of prescription drugs which may affect proper job performance must be reported to supervision.
- Work areas and work surfaces shall be maintained in proper order to not create a hazard such as blocked means of egress.
- Line of fire; employees should position themselves so that they are working in a manner that is not in the line of fire or in a position where they could be caught in, struck by, caught between something; such as spotting a commercial vehicle up to a loading dock and positioned between the backing vehicle and the loading dock itself.
- Baker employees are required to use fall protection equipment or systems when an assessment of the hazard indicates that a person could fall six (6) or more feet. This could be done with the use of a railing system or fall protect equipment such as a full body harness and lanyard.
- Respect all high pressure lines and treat them as they may fail at any time. This not only includes treating iron, but hoses as well.
- All slings and rigging must be in acceptable condition and appropriate for use.
- All loads must be secured to acceptable standards.

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General Facility Safety Rules

The following general facility safety rules pertain to the entire facility and must be followed by all employees. Any exceptions must be approved by the facility manager. Failure to follow these safety rules will result in disciplinary action.

- Follow all safety rules and procedures applicable to the work being performed.
- Seatbelts must be used any time a motor vehicle or forklift is in operation.
- Smoking is allowed in designated areas only.
- A proper maximum speed limit must be followed at all times.
- Always parking and drive must follow practices as required on company property.
- Review all jobs before performing them to assure they can be performed safely (perform hazard assessment and JSA). If any doubt exists about job safety, do not perform the job until supervisor provides a way to perform the job safely.
- Perform only those jobs and operate only equipment authorized by the company.
- A supervisor must assist during facility operations in areas not designated by signage as a full-time working area.
- A supervisor must assist when backing heavy duty equipment such as tractor trailers.
- Wear the job, as prescribed by general facility safety rules and specific job procedures, hard hat, steel toe shoes, safety glasses, approved flame resistant clothing, and proper gloves for the job. Follow all PPE requirements continuously on working areas within the facility.
- Inspect tools and equipment prior to use and report any defect or needing repair to supervisor before use.
- Always safety guards and devices on machinery and equipment are functioning properly before use.
- Thoroughly report all incidents including injuries, no matter how minor, to supervisor as soon as they can be taken to provide the necessary medical attention and prevent recurrence.
- Maintain a clean and orderly workplace by providing proper materials in assigned locations and removing all unnecessary items.
- Lift, push, pull, and handle only those things you are physically capable of handling safely while following the prescribed procedures.
- Slipping or falling results in injury and will not be tolerated. Proper fall prevention action will be taken.
- Lockout/Tagout procedures shall be followed by all authorized employees to protect themselves from the serious energy which is stored in and originating equipment, machines, and processes. (Remember Lockout/Tagout applies to all energy sources, including electrical, mechanical, hydraulic, pneumatic, chemical, thermal, or other sources in machines and equipment.)
- Wear the personal hazards associated with chemical jobs and how to protect yourself before handling chemicals.
- Report any detected safety or health hazards promptly to supervisor so that low cost corrective measures can be taken, such as employee guarding, or good ventilation.
- Use of alcohol and marijuana (drugs) on the job is prohibited. Use of prescription drugs that may affect proper job performance must be reported to supervisors.
- Work areas and work surfaces shall be maintained in proper order to prevent tripping and/or falling events.
- Employees should position themselves so that they are working in a manner that is not in the line of fire or in a position where they could be caught in, struck by, or caught between objects.
- Some employees are required to use fall protection equipment or harness when on structures of the hazard indicates that a person could fall or become. This area includes a multi-level process or full process equipment such as a full body harness and lanyard.
- Respect all high-pressure lines and treat them as though they may fail at any time. This includes gas and liquid.
- All signs and tagging must be in acceptable condition and appropriate for use.
- All loads must be secured to acceptable standards.



STOP WORK AUTHORITY

Everyone Has the Authority to Stop Work.

When an unsafe condition is identified, Stop Work Intervention shall be initiated, communicated to your supervisor, the issue corrected, and work resumed when safe to do so.

13.0 WELL-SITE SAFETY

The following General Baker Well-Site Safety Rules pertain to all well-site locations and must be followed by all employees. Any exceptions must be approved by the facility manager. Failure to follow these safety rules will result in possible disciplinary action.

The following are the minimum safety controls adopted in customer locations:

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- The PPE Safe Zone is within an arm's length of your vehicle. Hard hat, steel-toe shoes, safety glasses, FR clothing, hearing protection, and gloves must be worn at all times.
- Rings, loose clothing, unsecured long hair, watches and other accessories may not be worn when performing work on location.
- Everyone entering location is required to sign in with the gate guard and then check in with the HSE Representative on site before going to work.
- Every employee and Baker Contractor must participate in and sign the JSA for the task being completed before starting work.
- A Job Safety Analysis must be conducted anytime when conditions change.
- SSEs must have assigned mentor.
- Stop Work Authority must be utilized at all times.
- A tailgate safety meeting must be conducted at the beginning of each shift.
- All employees must participate and sign the Job Safety Analysis for the task being performed during the pre-job safety meeting.
- Management of Change must be recorded on the Job Safety Analysis.
- All injuries and incidents must be reported immediately to the Baker's Completion Coordinator, Supervisor or HSE Coordinator. The Completion Coordinator or Supervisor will communicate the incident to the customer representative prior to reporting to Baker management. Internal reporting will follow Baker incident reporting guidelines documented on the well-site Emergency Response Plan.
- Trained First Aid and CPR personnel must be available at each field location.

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- Only trained First Aid and CPR personnel shall administer treatment.
- All Baker QHSE rules & company policies must be followed at all times.
- Fire extinguishers shall be available per QHSE requirements at every well-site.
- Work areas in which access must be restricted must be identified by the use of barriers as indicated by: Caution Tape/Chain (Yellow or Yellow/Black) - indicates that a hazardous condition or task is underway within the area that could cause serious injury.
- Work areas in which access must be restricted must be identified by the use of barriers as indicated below: Danger Tape/Chain (Red or Red/Black) - indicates that a high-risk condition or task is underway within the area that will cause serious injury.
- Entry to hazardous areas (No-Go Zones) is restricted.
- Entrances to hazardous areas must have company approved warning signs and optional other information tag on tape to describe purpose.
- The restricted area tape/chain can be installed by any Baker employee on location.
- Any person entering the restricted area must be able to identify the hazards listed the warning sign or on the caution tag and abide by the conditions.
- Tandem axle vehicles require two ground guides when moving on location, either forward or backward. If ground guides are not available, trucks must wait. The driver will be issued a red card and instructed not to move until an authorized Baker employee takes possession of the red card. Once the red card has been provided to the

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authorized Baker employee, the driver will follow the directions of the spotters.

- All forklift, telehandler or front loader operations must be operated with one spotter or more if required to safely complete the task.
- Vehicles must be parked so that the first move is forward if practical.
- Any welding on location within 100 ft. of the wellhead or any vent or gas source requires appropriate work permits completed and approved by the customer. Only certified welders are authorized to perform welding operations.
- All equipment must be locked-out and tagged-out (LOTO) before any maintenance is to be done. All employees must follow Baker's specific LOTO procedures for the task being performed.
- Permit Confined Space entry is not authorized without the proper training and equipment. Under no circumstance, shall a Baker employee or contractor enter a permit confined space without the proper PPE, certifications, training, and equipment.
- Any disturbance of the ground deeper than 6" requires prior approval of the company representative.
- All work areas must be kept clean and free of debris, and all stairways and walkways must be kept clear. Refuse must be disposed of in appropriate containers.
- All internal combustion engines must be placed a minimum of 50' from the well-head. Any deviation must be approved by the company representative.
- All internal combustion engines must be set a minimum of 50' from any open-top flow-back tanks.

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- No Baker employee or contractor may be on location for longer than 16 hours without prior approval from the Division Manager and HSE Representative.
- Cheater pipes may be used if tool is specifically designed and manufactured for that sole purpose.
- Baker's policy strictly enforces no smoking in trailers, including e-cigarettes.
- Smoking is only allowed in signed, designated smoking areas.
- Operations will be shut down when lightning strikes are within 6 miles of the location, or when employees on location decide it is unsafe to continue work due to lightning. Refer to the site ERP plan.
- Operations will be shut down when wind speed or wind gusts exceed the safe operating range for any piece of equipment (crane, manlift, rig, etc.) or when workers on location decide it is unsafe to continue working due to wind.
- Any portable fuel cans must be stored away from traffic and any ignition sources.

14.0 **FIRE SAFETY**

14.1 *DEFINITIONS*

- Flammable - A gas or liquid with a flash point below 100°F.
- Combustible - A gas or liquid with a flash point at or above 100°F.
- Fire Classes - Categories used to describe the different types of fires: Class "A" - Fire having normal combustibles (i.e. wood, rags, paper, etc.) for a fuel.



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- Class "B" - Fire having flammable or combustible gases or liquids (i.e. gasoline, diesel, condensate, etc.) for a fuel.
- Class "C" - Any other class of fire (A, B or C) that also involves energized electrical equipment.
- Class "D" - Fire having a flammable or combustible metal for a fuel.
- Fire Extinguishing Agent - A material that can stop the chemical reaction of one or more of the different classes of fire.

14.2 HOUSEKEEPING

Good housekeeping and equipment maintenance must be followed to keep fire hazards to a minimum. Furniture and/or equipment shall be arranged to avoid contact with any heated surfaces.

All walkways, staircases, hallways, and doorways shall be kept clear of any obstructions.

Combustible and flammable materials used in the fabrication and maintenance of equipment shall be stored in the flammable storage locker/building. Combustible and flammable materials used in the cleaning and maintenance of living, eating, rest, wash, office, and other workspaces shall be stored in a flammable storage locker.

All worksites (including office spaces), passenger spaces of all vehicles, and the areas around ignition producing sources shall be kept free of flammable/combustible material and debris.

All fire extinguishers shall be conspicuously located and identified with a sign. Fire extinguishers shall not be stored in cabinets or tool boxes.

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14.3 SMOKING AND SMOKING MATERIALS

Smoking is allowed only in designated areas in Baker facilities and customer worksites. Never leave a burning cigarette unattended. It is the responsibility of the employee to know where the designated areas are located and to only smoke in the designated areas.

Matches and cigarette lighters shall not be carried into any area that may have an explosive atmosphere. In operating areas with non-explosive atmospheres, only safety matches and double-action cigarette lighters may be carried. Plastic case cigarette lighters shall not be carried around welding operations. Wastebaskets shall not be used as ashtrays and ashtrays shall not be emptied into wastebaskets.

14.4 FLAMMABLES AND COMBUSTIBLES

The following are ignition sources:

- Open flames
- Smoking
- Motor vehicles
- Hot Fueling of Tractor, Pumps and other Equipment
- Electrical outlets
- Switches
- Junction boxes
- Personal Electronic Devices (PED) and non-intrinsically safe equipment
- Etc.

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The following includes, but not limited to, materials that shall not be allowed near ignition sources:

- Containers of oil, gasoline, kerosene, diesel, solvents, etc.
- Oily rags
- Waste
- Debris
- Other combustible materials.

Buildings in which flammable or combustible liquids and/or gases are handled and stored must be adequately ventilated. Buildings that store large quantities of flammable liquids and/or gases must be designed and engineered for flammable storage.

Combustible and flammable cleaning and maintenance/materials in quantities greater than one (1) gallon shall be stored in a flammable storage building. Gasoline, diesel, kerosene, varsol, and other fuels must be stored in a flammable storage unit or an outside storage tank. Gasoline, kerosene or other flammable liquids shall not be stored in glass containers. Only approved containers may be used to store or transport flammable liquids.

Oil-soaked clothing shall be removed and properly disposed of or cleaned. Dirty rags shall be disposed of in airtight metal containers.

Aerosol sprays (i.e. paints, solvents, cleaners, etc.) are flammable; they shall not be used near open flames or any other ignition sources. Aerosol cans shall be stored in an approved flammable storage locker when not in use.

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14.5 AUTOMOTIVE FIRE PROTECTION EQUIPMENT

All non-DOT vehicles shall carry a portable fire extinguisher that is equivalent to or greater than a 2 1/2-pound ABC Dry Chemical Unit.

Unless permitted, automotive equipment and other ignition sources are prohibited within the firewall, fence-enclosure of a tank battery, or in other designated facilities. In the absence of firewalls or enclosures, automotive equipment and other ignition sources **MUST** be kept fifty (50) feet or more from the tank battery equipment. The distance is determined by considering wind, weather, terrain, and other conditions.

All DOT vehicles shall carry a fire extinguisher that is equivalent to or greater than a 10-pound ABC Dry Chemical Unit. When more than one extinguisher is carried on a vehicle, the extinguishers shall be installed on both sides of the tractor/trailer.

14.6 BONDING AND GROUNDING

When flammable and combustible liquids (i.e. condensates, gasoline, diesel, etc.) with a flash point of less than 200°F are drawn into an open container (bucket), a metal container must be used and it must be properly bonded or grounded.

Bonding can be achieved by:

- Hanging the bare metal handle of a metal container over the valve from which the liquid is being drawn. **WARNING:** There must not be any wood, rubber or plastic on the handle.

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- Setting the metal container down on a steel plate or steel deck definitely known to be in contact with the vessel from which the liquid is being drawn
- Using threaded connections between the portable container to the container from which the liquid is being drawn
- Attaching a metal connecting cable from the portable container to the container from which the liquid is being drawn.

Grounding can be achieved by attaching a metal connecting cable from the portable container to a metal stake driven into the ground two (2) to three (3) feet. Each container must be grounded separately.

Personnel can generate static electricity during normal work operations. Therefore, employees shall not place their hands in or under the fluid stream being drawn inside a container. Before the valve is opened, bonding can be accomplished by skin contact with the valve or vessel from which the liquid or gas is being drawn.

14.7 HOT FUELING

All hot fueling of equipment must have prior approval by executive and basin management. Please refer to Baker's Well-Site Fueling Guideline procedure or Mob plan for the well-site operation. The HSE Coordinator must be notified prior to any hot fueling operation to ensure a Hot Work permit and JSA are conducted.

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14.8 FIRE PROTECTION

Know the Emergency Response Plan or Station Bill for the worksite. Be familiar with the following fire survival techniques:

- Give or activate the alarm and notify other personnel on the location
- Evacuate as per the location Emergency Response Plan or Station Bill
- Be aware of the location of all fire exits
- Understand the evacuation standards for the worksite
- Do not use elevators; use designated exits
- If caught in a smoke-filled area, crawl on the floor and take short breaths through your nose. If possible, hold a cloth in front of your face.
- Before opening a door, touch it to check if it is hot. If it is hot, do not open the door.

If unable to safely exit a fire or smoke-filled area:

- Proceed to a room with an outside window
- Close the door to isolate the room from the smoke-filled hallway
- Move to a window
- Signal for help.

Notify the Supervisor of:

- The location
- The time that the fire was discovered
- Any actions taken to contain the fire.

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Remain onsite for thirty (30) minutes after fire is extinguished. Fire extinguishers are provided in all areas of each facility and in every vehicle. These units are to be used on small fires that can be extinguished quickly. If a person is not trained in the use and operation of fire extinguishers, they should not attempt to put out a fire. Maintenance and inspections of fire equipment shall be performed by a trained employee or qualified third party monthly. Additionally, an inspection or annual maintenance check by a third-party contractor must be conducted annually. All fire extinguishers that fail inspection shall be tagged and removed from service.

14.9 FIELD SPECIFIC FIRE FIGHTING PLAN

Fire Suppression of any type of fire should only be attempted in the initial stages of ignition (incipient/growth stage) or for egress purposes so employees can reach an area of safe refuge.

Types of fire most likely to encounter on our work sites:

- Pump Fire/Fuel Fires- Class B - liquid fuel fires can be very challenging; depending on the fuel in question they can ignite easily, produce high levels of heat and spread rapidly. Typically, fuel fires involve a large source of product such as a tank or a pool of fluid from some type of spill. When suppressing this type of fire, one should use a rain down method (aim high and allow product to fall down onto fire) in order to prevent splashing and spreading the fire. ABC extinguishers is a good agent to apply to these types of fires. Suppression of this type of fire should only be attempted in the initial stages of ignition (incipient/growth stage).

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- **Tire Fires - Class A** - extinguishing a tire fire is very difficult as a burning tire will off-gas a highly toxic, thick, and dark smoke. Once burning and excessively heated, tires are very difficult to cool down. If tire fires are not extinguished quickly after being ignited, they can burn out of control to the point of where an abundant amount of water will be needed (will require the fire department/emergency services). If an attempt is to be made on extinguishing a tire fire, one should use an ABC extinguisher and implement PASS (pull, aim, squeeze, sweep at base of fire). Prior to using a fire extinguisher, use your cell phone and call 911 and report the fire before attempting to put the fire out.
- **General & Electrical Fires** - to extinguish ordinary combustibles and electrical fires, the use of an ABC extinguisher would be sufficient. If an attempt is to be made on extinguishing a fire, one should use an ABC extinguisher and implement PASS (pull, aim, squeeze, sweep at base of fire).

14.10 TRAINING

Each new employee shall complete fire awareness and hands-on fire extinguisher use training upon hire that will familiarize each employee with extinguisher use and incipient firefighting hazards. Annual training will be conducted thereafter.

Each employee designated to inspect and maintain fire extinguishers shall complete a one day fire science and hands-on fire extinguisher use and maintenance training program before being assigned to inspect and maintain fire extinguishers. These employees shall complete a one day refresher fire science and hands-on fire extinguisher use and maintenance training program annually.

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Each Facility shall conduct a fire and evacuation drill as per their location Emergency Response Plan at least once annually.

14.11 RECORDS

Documentation of all inspections, audits, maintenance, drills, and training required by this section shall be maintained.

14.12 HOT WORK

Hot Work is defined as any work that will generate sufficient heat to ignite combustible and/or flammable materials. Combustible materials are substances that will freely support combustion once ignited. The following activities are examples of hot work; however, there may be others at specific locations:

- Welding
- Flame cutting
- Grinding
- Portable heaters or steamers
- Fired equipment on oilfield leases
- Electrical tools/equipment (that are not explosion-proof or intrinsically safe)
- Cameras
- Personal Electronic Devices (PED)

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- Sandblasting operations (static charges).

The Supervisor of hot work operations in field operations and areas not designed or approved for such processes must be a qualified Company Representative. Supervisors are responsible for ensuring that all hot work is authorized and permitted prior to starting work regardless of who is performing the hot work.

14.13 HOT WORK SAFE WORK PRACTICES

Hot work shall not be permitted in the following situations:

- In areas not authorized by management
- In buildings while such fire protection is impaired
- In the presence of explosive atmospheres (mixtures of flammable gases, vapors, liquids, or dusts with air); or explosive atmospheres that may develop inside unclean or improperly prepared tanks or equipment which have previously contained such materials; or that may develop in areas with an accumulation of combustible dust
- In areas near the storage of large quantities of exposed, readily ignitable materials.

Any hot work activity to be performed must be within a minimum of thirty-five (35) feet of a combustible or flammable source.

If work must be conducted in a Class 1 / Division 1 or 2 potential areas, the atmosphere in the area must be tested for the presence of combustible gases or vapors prior to entering the area and constantly during the time workers are present in the area. NO hot work shall

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begin if the concentration of a combustible gas is greater than 10% of its Lower Explosive Limit (LEL). No exceptions to this rule shall be made. If the concentration exceeds 10% of the LEL, work shall stop and all personnel shall leave the area until the area can be ventilated and the gas concentration lowered to below 10% of the LEL. Non-direct reading instruments are NOT PERMITTED for hot work or confined space entry jobs.

Where appropriate, the area must be surveyed for cracks and/or openings in the floor or deck that may allow sparks to drop to combustible materials below. These cracks and/or holes must be covered with a welding tarp or fire blanket.

All ducts and/or conveyor systems that may carry sparks to combustible or explosive materials must be shut down, Lock-out / Tag-out (LOTO), sealed, or covered.

The Supervisor of process vessels that are being purged with an inert gas must give special considerations. Normal combustible gas indicators will not accurately measure the combustible gas in a process unit being purged as the gas concentration drops from the Upper Explosive Level (UEL) through the explosive range to the LEL. Special instruments must be used to accurately monitor combustible gas in an "inert" atmosphere. Inert gases can also displace the oxygen content making the atmosphere very dangerous.

When performing welding, cutting or brazing or hot work in a confined space, the following must be addressed:

- All confined spaces shall be adequately ventilated, including the immediate area outside of the confined space. Airline respirators

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must be used when ventilation is inadequate or not possible. A self-contained breathing apparatus must be used in areas immediately hazardous to life. An outside helper (Attendant) must be present while work is being performed in a confined space. Oxygen shall never be used to ventilate a confined space.

- Gas cylinders and welding machines must be kept outside of confined space.
- When working in a confined space through a manhole or other small opening, lifelines or safety belts must be used to ensure quick removal from the space in the event of an emergency. An Attendant must be present during operations with a rescue plan in hand.

If the conditions change, all hot work shall stop. Work shall not resume until the hazardous condition is eliminated, the area is resurveyed, and it is determined to be safe. All stops and restarts shall be recorded on the Hot Work Permit.

Checking and testing that precedes issuance of a Hot Work Permit shall be as close as practical to the time the work is to begin. The percent of the LEL shall be recorded on the Hot Work Permit. Combustible gas indicators shall be calibrated once each year prior to performing the gas test for each permit. If the meter is used multiple times throughout the hot work activity, it only needs to be calibrated at the beginning of the work. Results must be documented in a logbook maintained at the facility. The person performing the hot work shall notify the Customer Representative or Supervisor responsible for operation of equipment or for supervising the work area when hot work is complete.

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14.14 HOT WORK PERMIT – FIRE PROTECTION

Persons performing hot work must obtain a Hot Work Permit from the Location Supervisor before beginning hot work. A Hot Work Permit must be issued before any hot work is performed outside designated welding areas. This requirement applies to either field or plant operations.

The Location Supervisor, the individual performing hot work and the fire watch person shall conduct an inspection of the work area and all equipment to ensure that it is safe to proceed.

The permit issuer shall complete the Hot Work Permit prior to starting work and must ensure that the individual surveying the area is trained in Company safety policies and in the use of gas detectors.

The permit must be reviewed and signed by personnel performing the hot work and the permit issuer. The Supervisor responsible for the area in which hot work is being conducted must be notified and must sign the permit. The permit will stay in the possession of the welder during the shift.

The person approving the permit must ensure that the area is constantly surveyed to ensure that the conditions remain suitable for hot work. The work area shall be resurveyed following all breaks, meals, meetings, or other interruptions in the work. Permits will not be valid for shifts other than the one in which the work started (12 hours only).

Each permit will be dated and will carry an expiration time. In the event the hot work will extend past the permit expiration time; a new permit

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must be obtained before the next shift or work period begins. Expired Hot Work Permits shall be kept on file at the facility.

14.15 FIRE WATCH

The Location Supervisor is responsible for assigning a fire watch anytime welding, flame cutting, grinding, use of portable steamer equipment, etc. is performed outside designated welding area. Fire watch personnel must be trained in the proper use of fire extinguishers. The Supervisor shall review the following duties of fire watch personnel prior to each hot work job that is deemed to require a fire watch:

- Understanding the location and nature of the hot work
- Survey of the area to be sure the necessary fire protection equipment is in place and ready for use
- Survey of the area for combustible or flammable materials
- Remain in the area while the work is being performed and remain in constant communication range with person(s) during the hot work
- The area should never be left by the attendant for any reason without a replacement or shutting down the work
- When bulkheads or walls are involved in hot work; both sides require a fire watch. Caution must be used so that heat transmission through steel building members or pipe does not cause a hazard.
- All combustible materials on the floor, wall partitions, ceilings or roofs of combustible material that can be moved shall be moved at least thirty-five (35) feet away. When the combustible materials cannot be moved, all necessary precautions must be

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taken such as covering with fire protection equipment (i.e. welding tarp or fire blanket.)

- A fire watch shall be maintained for at least thirty (30) minutes after completion of welding or cutting operations to detect and extinguish possible smoldering fires.
- Assigned fire watch personnel shall have no other job duties at the time of the watch.
- The fire watch personnel must be in the ready position with fully functional firefighting equipment at all times when hot work is being performed. The ready position consists of being attentive and having a fire extinguisher in position prior to the start of work and while the hot work is being performed. The fire extinguisher charge cartridge must not be punctured unless a fire actually occurs.
- The fire watch personnel must periodically survey the area with a combustible gas detector to ensure the area is suitable for hot work. The work shall stop immediately if the combustible gas indicator registers greater than 10% of the LEL of gas in the atmosphere. Only direct reading instruments are permitted for this work.
- The fire watch personnel are authorized to stop the work whenever they feel the conditions are unsafe. The fire watch personnel are also authorized to stop the work if the work description on the permit is being exceeded. The Supervisor of the hot work activity must be notified of the situation immediately.
- The fire watch personnel shall be equipped with all Personal Protective Equipment (PPE) needed to perform the work safely.

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14.16 PRE-JOB HOT WORK SAFETY MEETING

A pre-job safety meeting shall be conducted for hot work jobs and documented by the person supervising the hot work prior to starting work. The meeting will review the following topics:

- Hot Work Permit and gas testing/monitoring requirements
- Job Safety Analysis (JSA)
- Appropriate emergency standards and notifications
- Ensure area is free of non-essential personnel, equipment and vehicles
- Use of PPE
- Authority and responsibility of fire watch personnel
- Blinding, isolation and purging of equipment
- Ensure at least two (2) escape routes with easy access are provided if hot work is being conducted in a field service activity. A second escape route must also be provided, if possible, when conducting hot work in a tank or vessel.

The pre-job meeting will be documented on the Job Safety Analysis.

15.0 CRANE OPERATIONS AND INSPECTION

Any employee operating a 20 ton or greater mobile crane for the Company must be authorized to operate the equipment, obtained NCCCO certification and is compliant with the NCCCO requirements including fit for duty. Employees operating mobile cranes rated for less than 20 tons, shall at a minimum have a 3rd party or in-house crane operators course, achieve certification, recertified every two years,

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authorized by the company to operate the crane type and is fit for duty, unless government regulation or customer requires NCCCO.

The operator shall be knowledgeable of the proper operation and care of the crane. If any abnormalities arise, the operator shall shut down the crane and report the problem. The crane is not to be operated until the abnormality has been corrected.

The operator shall conduct an inspection of the crane and physically check the controls operation each time the crane engine is started.

The operator shall know the weight of each load before making a lift. The crane shall not be loaded beyond the specifications of the load-rating chart.

The crane operator shall not operate the crane unless these items are installed and operating properly:

- A horn that can be heard above the noise of the running crane engine and background noise
- A boom angle indicator
- A weight indicator on the main lift line
- Load chart
- An anti-two block device on each lift-line.

Any operation that requires a lift of 75% of the cranes capacity according to the load chart, must have a documented lift plan.

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15.1 CRANE INSPECTIONS

Prior to initial use, all new and altered cranes shall be inspected to ensure compliance with the current revision of Baker's Mechanical Lifting standard.

All mechanical defects are to be reported to the Division Manager immediately. The crane is to be removed from service until the condition(s) are corrected.

The daily or pre-use inspection shall be recorded on the Mobile Crane Daily Checklist, Pre-Use Crane Inspection Report or the Mobile Crane Pre-Starting Checklist for all mobile cranes.

Each crane operator shall visually inspect the crane and physically check the control operations every time the engine is started, prior to or during each change in operator and as operator deems necessary. Manufacturer's recommendations must be considered.

The following items shall be inspected for defects at intervals as defined above or as specifically indicated, including observations during operations for any defect which might appear between annual inspections. All deficiencies such as those listed below shall be carefully examined and corrected:

- All functional operational mechanisms for maladjustment interfering with proper operation shall be checked daily and corrected immediately
- Deterioration or leakage in lines, tanks, valves, drain pumps, and other parts of air or hydraulic systems shall be checked daily and corrected immediately

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- Hooks shall be visually inspected daily and monthly for any deformation and/or cracks. Hooks with cracks or having more than 15% in excess of normal throat opening or more than 10% twist from the plane of the unbent hook shall be removed from service and replaced.
- Wire rope and other rope lifting lines shall be inspected daily and monthly for deterioration, cracks, deformation, broken strands, etc.
- Pad-eyes shall be visually inspected (for deterioration, cracks, deformation, etc.) on all loads prior to each lift.

Annually (no more than twelve calendar months between inspections), a third party qualified crane inspector shall conduct an operational inspection and load test of each crane in accordance with the Baker Mechanical Lifting standard. The qualified crane inspector shall certify the load capabilities, hoisting machinery and the operational condition of each crane. Documentation of these certifications, including dates and results shall be maintained in the individual crane maintenance file for five (5) years.

Before any repairs are performed, an "Out of Order" notification must be placed on the crane or it must be locked out.

15.2 LOAD CHARTS

A substantial and durable rating chart with clearly legible letters and figures shall be securely fixed to each crane cab in a location easily visible to the operator while seated at the control station.

Written reports of rated load tests shall be available showing test standards and confirming the adequacy of repairs or alterations.

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15.3 FIRE EXTINGUISHERS

An ABC fire extinguisher (10 BC rating or higher) shall be kept in each crane cab or in the vicinity of the cab. All employees shall be trained in the proper use and maintenance of fire extinguishers.

15.4 OVERHEAD ELECTRICAL LINES

When overhead electrical lines are present in the area where cranes will be operated, all lines shall be de-energized or grounded or other protective measures shall be provided before work is started. When it's not feasible to de-energize or ground power lines rated 50 kV or below, the minimum clearance between the lines and any part of the crane or load shall be ten feet.

15.5 INTERNAL COMBUSTION ENGINES

Where internal combustion engine powered equipment exhausts in closed spaces, test shall be made and recorded to see that employees are not exposed to unsafe concentrations of toxic gases or oxygen deficient atmospheres.

15.6 CRANE MODIFICATIONS

No modifications or additions which affect the capacity or safe operation of the equipment shall be made without the manufacturer's written approval. If modifications are made, the capacity, operation and maintenance instruction plates, tags or decals shall also be changed accordingly. The original safety factor of the equipment shall not be reduced.

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15.7 ILLUMINATION

All lifting operations must be illuminated properly during night-time or low visibility conditions. The crane operator must have clear visible line-of-sight of the signaler and all other employees involved in the lifting operations.

15.8 RIGGING

Only personnel with Company training and experience are qualified to do any rigging (i.e. attaching or detaching a load to a lifting device) on company property and/or worksites.

16.0 FALL PROTECTION

These fall protection standards establish guidelines to be followed whenever an employee of Baker or its Contractors works on ladders, at heights or with fall protection. The rules established are to be followed to provide a safe working environment and to govern the use of fall protection standards and equipment.

The effectiveness of the written fall protection standards depends upon the active support and involvement of Employees and Contractors who work with standards and jobs requiring it. This written plan is intended to be used in implementing standards to ensure that work with fall protection is carried out safely to minimize the possibility of injury or harm to Baker employees or its Contractors.



These written fall protection standards establish uniform requirements designed to ensure that fall protection training, operation and practices are communicated to and understood by the affected employees and

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Contractors. These requirements are also designed to ensure that standards are in place to safeguard the health and safety of all Employees and Contractors.

16.1 UNPROTECTED SIDES AND EDGES

Each affected Baker Employee or Contractor working at an elevation of four (4) feet or greater above a working surface is required to wear a full body harness with restraint system unless it is protected by guard rails and toe bar.

16.2 WELLHEAD OR LADDER

Each affected company employee or Contractor required to climb a wellhead or ladder as part of their work must wear a full body harness with a Self-Retracting Lifeline (SRL) which will prevent the employee or Contractor from falling while climbing the wellhead. The shock-absorbing device shall be attached to a secure overhead structure.

16.3 HOIST AREAS

Each affected company Employee or Contractor required to work in a hoist area shall be protected from falling four (4) feet or more to a lower level by a guardrail system or a full body harness. If the guardrail system must be removed to facilitate hoisting operations and an employee or Contractor must lean through the access opening or out over an edge to receive or guide equipment or materials, the Employee or Contractor must wear a full body harness with a shock-absorbing lanyard. The shock-absorbing device shall be attached to a secure overhead structure.

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16.4 HOLES

Each affected company Employee or Contractor required to work around open holes must ensure that the hole is covered or protected by a guardrail system. Open holes above work areas must be covered to prevent objects from falling from above.

16.5 RAMPS, RUNWAYS AND OTHER WALKWAYS

All company-owned ramps, runways and other walkways used by Employees or Contractors must contain a guardrail system.

16.6 DANGEROUS EQUIPMENT

Each affected Baker employee working less than four (4) feet above dangerous equipment shall ensure that either a guardrail system is in place or the equipment has some other type of equipment guard. If guards cannot be used, a fall protection system must be utilized.

16.7 WALL OPENINGS

Each affected Baker Employee or Contractor working in areas where wall openings above four (4) feet from a lower level are not protected by a guardrail must wear a full body harness with a shock-absorbing device which will prevent the employee from falling more than one (1) foot. The shock-absorbing device shall be attached to a secure overhead structure. When working on customer locations, all affected Baker Employees and Contractors must participate in a pre-job or daily safety meeting and JSA. All fall hazards identified must be eliminated or special precautions shall be addressed.

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16.8 FALLING OBJECTS

Each affected Company employee and contractor is required to wear a hard hat in designated areas, but when exposure to falling objects from a structure above a working area is a potential risk, other measures will be considered. Toe-boards, guardrail systems, canopy structures, or barricades shall be used when necessary.

16.9 TOE-BOARDS

When used as protection from falling or falling objects, toe-boards shall:

- Be a minimum of 3.5 inches high and no more than 1/4-inch clearance above the surface
- Be solid or have openings not over 1 inch in greatest dimension
- Be capable of withstanding a force of at least 50 pounds applied in any downward or outward direction at any point
- Be erected along the edge of the overhead walking/working surface for a distance sufficient to protect employees below.

If tools, equipment or materials are piled higher than the top edge of a toe board, an additional type of protection, paneling or screening shall be placed from floor to guardrail to protect employees from falling objects.

16.10 FALL PROTECTION SYSTEMS

Baker and its Contractors shall ensure that their employees are protected by fall protection at all times. Baker will install one of the fall protection systems as required by relevant OSHA fall protection standards for General Industry.

Fall protection plans will be developed by the qualified Division Manager with the assistance of the HSE Department. Division Managers shall receive training in the application and use of fall protection systems.

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16.11 GUARDRAIL SYSTEMS

When used as protection from falling objects, guardrails shall have openings small enough to prevent passage of potential falling objects.

16.12 PERSONAL FALL ARREST SYSTEMS

Each Baker facility shall evaluate their employees' work conditions and environments to determine the personal fall arrest system that best suits the environment.

The use of body belts for fall arrest is prohibited and a full body harness is required.

Fall protection devices (i.e. full body harnesses, lanyards, ropes, etc.) must be re-certified every three (3) years (36 months) from the date of manufacture. A competent person must inspect all fall protection devices at least once a year. All fall protection devices that have experienced one (1) shock from a person or falling object must be removed from service and submitted to the appropriate HSE Representative with a report on the incident.

All equipment purchased for use as fall arrest systems must meet or exceed OSHA, ANSI and ASTM standards before Baker can purchase them. Baker will request and evaluate information on the system based on its performance during testing to determine if the system meets required standards and obtain comprehensive instructions on the system's proper use and application.

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16.13 POSITIONING DEVICE SYSTEMS

Below are general requirements for positioning device systems:

- Positioning devices shall be rigged such that an employee cannot free-fall more than 2 feet
- Positioning devices shall be secured to an anchorage capable of supporting at least twice the potential impact load of an employee's fall or 5,000 pounds, whichever is greater

16.14 RESCUE PLAN

Prior to starting work in a fall hazards work area, a Fall Protection Rescue Plan must be written and in place at each worksite. This plan is required to provide for the rescue of an individual from their suspended fall protection devices in less than fifteen (15) minutes from the time of the fall. Each employee involved must be ready to perform a rescue in the event that an individual falls and is suspended by their fall protection device. The plan shall include necessary equipment that may be used, roles of each employee and standards.

16.15 TRAINING

Baker Employees and Contractors exposed to fall hazards shall receive fall protection training. Fall protection training will consist of instruction on how to recognize the hazards of falling and the standards to be followed to minimize these hazards. Employees and Contractors shall be trained on the safe use of the system including:

- Application limits
- Proper anchoring and tie-off techniques

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- Estimation of free-fall distance, including determination of deceleration distance and total fall distance to prevent striking a lower level
- Methods of use
- Inspection and storage of the system

17.0 ROTATING EQUIPMENT (MACHINE GUARDING)

All revolving parts of engines and machinery such as shafts, fans, belts, chain drives, clutches, and other moving parts will be fitted with machinery guards to protect personnel working around the machinery.

Personnel shall not remove safety guards from machinery or equipment except for the purpose of inspecting, making repairs, lubricating, or making adjustments and then only after the power has been shut off, locked out and red tagged.

All machinery guards will be replaced immediately after completion of service, repair, adjustments, etc.

Guards must be kept in place on grinders.

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17.1 LOCK-OUT / TAG-OUT (LOTO)



These standards describe energy control standards, employee training and periodic inspections that ensure that before any employee performs any service or maintenance on a machine or equipment where the unexpected energizing, start up or release of stored energy could occur and cause injury or damage, the machine or equipment shall be isolated from the energy source and rendered inoperative. Potential energy sources could include electrical, mechanical, hydraulic, pneumatic, chemical, thermal, tension, gravity, etc.

Energy isolating devices (locks or tags) shall be used to Lock-out / Tag-out (LOTO) equipment during service or maintenance operations. Where feasible, a lock-out device shall be used to isolate an energy source. Where a lock out device is not feasible, a tag-out system shall be used.

17.2 ENERGY CONTROL

Each Facility and project shall evaluate all devices (equipment and machines) with power sources and/or stored energy. Based off of the information collected, a LOTO plan/form shall be completed for each LOTO operation and documented on the Specific Lock-out / Tag-out Plan.

It will not be necessary for a Specific Lock-out / Tag-out Plan to be written for service or maintenance on equipment meeting ALL of the following requirements:

- No potential for stored or residual energy or re-accumulation of

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stored energy after shutdown which could endanger employee

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- There is a single energy source which can be readily identified and isolated
- The isolation and locking out of the energy source will completely de-energize and deactivate the machine or equipment
- Equipment or machine is isolated from that energy source and locked-out during servicing or maintenance
- A single lock-out device will achieve a locked-out condition
- The lock-out device is under the exclusive control of the authorized employee performing the service or maintenance
- The service or maintenance does not create hazards for other employees
- There have been no incidents involving the unexpected activation or re-energizing of the machine or equipment during service or maintenance

17.3 PERMIT TO WORK

All non-routine LOTO activities must be initiated by following the Baker Permit to Work safe work practices using the Baker Permit to Work form. Equipment that start and stop automatically must be locked-out and tagged-out at the control box or other remote control location. All controls, software overrides, hard-wire bridging or interlock bypassing if applicable must be identified, a risk assessment performed, a procedure implemented for lock-out / tag-out, and auditing established prior to operation of affected equipment. For routine field operations maintenance and repair, a Specific Lock-out / Tag-out Plan has been implemented by the company.

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17.4 SPECIFIC LOCK-OUT / TAG-OUT PLAN

In cases when performing maintenance, repairs, or other job tasks, on a live/energized piece of equipment, Baker employees must establish if there is a unique and/or specific LOTO plan and follow it accurately.

17.5 AUTHORIZED PERSONNEL QUALIFICATIONS

Personnel that perform maintenance on, or otherwise work on any energized equipment, pressurized system or enclosed fluid system containing flammable and/or toxic materials shall have successfully completed LOTO training before being allowed to conduct any LOTO standards.

17.6 AFFECTED EMPLOYEE NOTIFICATION

Affected employees shall be notified by authorized employees performing LOTO of application or removal of a LOTO device.

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17.7 CONDUCTING A LOTO

LOTO standards shall cover the following elements and actions and shall be done in the following sequence and documented on the Permit to Work Permit:

- **Preparation for Shutdown.** Before an authorized or affected employee turns off a machine or equipment, the authorized employee shall have knowledge of the type and magnitude of the energy, the hazard of the energy to be controlled, and the method or means to control the energy.
- **Machine or Equipment Shutdown.** The machine or equipment shall be turned off or shutdown. An orderly shutdown must be utilized to avoid any additional or increased hazard(s) to employees as a result of the shutdown.

The authorized employee shall verify that all energy sources have been properly secured and de-energized prior to starting work on any equipment. This standard shall be specific to the device being locked out:

- Alert all affected personnel that the energy source is locked out and that the lock out mechanism is being tested
- Bleed off any stored energy from the device.
- **Machine or Equipment Isolation.** All energy isolating devices that are needed to control the energy shall be physically located and operated in such a manner as to isolate them from the energy source.
- **LOTO Devices.** Devices shall be affixed to each energy isolating device by an authorized employee. Contact information must be present on each lock.

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Prior to starting work on any equipment, the employee must place an assigned padlock on the control switch, lever or valve which is in the "Off" position. This must be done even if other locks are already in place.

Tags are not to be used as the primary protection device but shall be used only on system components which cannot be locked out. If used, it should clearly indicate "Off". As soon as possible, the components that could not be locked out will be modified to allow for lock out protection.

Stored Energy. Following any application of energy isolating device, all potentially hazardous stored or residual energy shall be relieved, disconnected, restrained, or otherwise rendered safe. If there is a possibility of re-accumulation of a stored energy level, verifications of isolation shall be continued until the servicing or maintenance is completed or until the possibility of such accumulation no longer exists.

Authorized Employee. Any group LOTO operations shall be supervised by a designated authorized employee to prevent any confusion. Only the designated authorized employee shall make LOTO releases. Each authorized employee shall place a personal LOTO device to the group device, Lockbox or comparable mechanism when work begins and shall remove those devices when work stops.

17.8 LOTO RELEASE

Before LOTO devices are removed and energy is restored to the machine or equipment, the following standards shall be followed:

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- The work area shall be inspected to ensure that non-essential items have been removed and to ensure that all components are operating correctly
- The work area shall be checked to ensure that all employees have been safely positioned
- When the job is complete, the authorized employee shall remove the locking device and/or tags installed at the beginning of the job and advise all other employees, as appropriate, that the equipment has been restored to service.

NO employee may remove another employee's lock or tag from equipment. When the authorized employee who applied the LOTO device is not available to remove it, the following standards shall be followed:

- Company senior management and HSE manager must authorize the removal of a LOTO device by anyone other than the authorized person that installed the device.
- Company supervisory level personnel authorizing the removal shall make all reasonable efforts to contact the authorized person that installed the LOTO device and inform them of its removal. In any case, the authorized person that installed the LOTO device must be informed that the device has been removed before resuming work at the worksite.
- Customer must be notified of this removal.

17.9 TEMPORARY REMOVAL OF LOTO DEVICES

When the LOTO device(s) must be temporarily removed to test or position machines or equipment, the following sequence of actions shall be followed by an authorized supervisory level employee:

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- Clear the machine or equipment of tools and materials
- Remove employees from the machine or equipment area
- Remove the LOTO device(s)
- Energize and proceed with testing or position
- De-energize all systems and reapply energy control measures

17.10 INFORMING OUTSIDE PERSONNEL

Company supervisory personnel or the authorized employee performing LOTO operations must inform all outside personnel of the elements of the particular operation and ensure that work efforts covered by this standard are fully coordinated and complied with.

17.11 SHIFT OR PERSONNEL CHANGES

At the beginning of each shift or when other changes warrant, all affected personnel shall be notified of all known hazards. Where appropriate, a pre-job, daily safety meeting or Job Safety Analysis shall be used to make these hazards known.

In case of shift or personnel changes, a changeover period will be established so that the authorized employees may exchange their assigned locks and tags. Authorized personnel assuming control of lock out of equipment will be fully briefed in the scope and status of the work by those who are being relieved.

17.12 LOCKS AND TAGS

Protective materials and hardware such as locks, tags, chains, wedges, key blocks, adapter pins, self-locking devices, tag out devices, and other energy control measures shall be supplied by the Company for

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employees to use in LOTO operations. LOTO devices shall be singularly identified and shall be the only devices used to control energy and shall meet the following requirements:

- LOTO devices shall be capable of withstanding the environment to which they are exposed for the maximum period of time that exposure is expected
- Tag out devices shall be constructed and printed so that exposure to weather conditions or wet and damp locations will not cause the tag to deteriorate or the message on the tag to become illegible
- Tags shall not deteriorate when used in corrosive environments such as areas where acid and alkali chemicals are handled and stored
- LOTO devices shall be standardized in at least color, shape or size criteria and the print and format on tags shall be consistent
- Lock out devices shall be substantial enough to prevent removal without the use of excessive force or unusual techniques
- Tag-out devices shall be substantial enough to prevent inadvertent or accidental removal, shall be of non-reusable type, attachable by hand, self-locking, and non-releasable with a minimum unlocking strength of no less than fifty (50) pounds and having the general design and basic characteristics of being at least equivalent to a one piece, all environment tolerant nylon cable tie
- Devices shall indicate the identity of the employee applying the device(s)
- Tag-out devices shall warn against hazardous conditions if the machine or equipment is energized and shall include one of the following:

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- Do Not Start
- Do Not Open
- Do Not Close
- Do Not Energize
- Do Not Operate

17.13 PERIODIC INSPECTION

A Periodic Inspection of the Energy Control Standards shall be conducted at least annually by HSE on the Specific Lock-out / Tag-out Plan to ensure that the standards are being followed. The inspection shall:

- Be conducted to correct any deviations or inadequacies identified
- Be performed by an authorized employee other than the one(s) utilizing the energy control standards being inspected
- Include a review between the inspector and authorized employees of that employee's responsibilities under the energy control standard being inspected
- Include a review between the inspector and authorized and affected employee of that employee's responsibilities under the energy control standard being inspected.

The inspection shall include a certification identifying the machine or equipment on which the energy control standard was being utilized, the date of the inspection, the employees included in the inspection, and the person performing the inspection.

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17.14 EMPLOYEE TRAINING

All company employees will receive LOTO training upon hire to ensure that the purpose and function of the energy control standards are understood. The purpose of the training is to ensure that the knowledge and skills required to perform maintenance safely are obtained. The training shall include the following:

- Each employee performing non-routine work that requires the employee to lock-out or tag-out equipment and are designated authorized employees shall receive training in the recognition of applicable hazardous energy sources, the type and magnitude of the energy available in the workplace, and the methods and means necessary for energy isolation and control
- Each employee affected by non-routine equipment repair or maintenance that requires locked-out and tagged-out equipment are designated affected employee shall receive instruction on the purpose and use of the energy control standard
- All other employees who conduct, assist or are affected in routine maintenance or repair work operations receive LOTO awareness training.
- When tag out systems are being used, employees shall also be trained in the following limitations of tags:
 - Tags are essentially warning devices affixed to energy isolating devices and do not provide the physical restraint on those devices that is provided by a lock
 - Tags shall not be removed without proper authorization by the person responsible for it and must never be bypassed, ignored or defeated

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- Tags must be legible and understandable by all authorized, affected and all other employees whose work operations are being performed in the same area
- Tags must be attached securely to withstand the environment
- Because tags may evoke a false sense of security, their meaning must be understood
- Tags must be securely attached to energy isolating devices so that they cannot be inadvertently or accidentally detached during use
- Retraining shall be conducted whenever an annual inspection reveals that there are deviations from or inadequacies in the employee's knowledge or use of the energy control standards.

After employee's successfully complete LOTO training, records shall be kept on file that contain the employee's name, type of training, training date, and instructor's signature.

18.0 STRUCK-BY HAZARDS

A struck-by hazard refers to hazards in which a worker can be hit and injured by an object, tool or equipment. Struck-by hazards are mostly related to improper use of hand tools or missing guards on tools or equipment, improper material and equipment handling and poor housekeeping.

18.1 *HAND TOOL GENERAL SAFETY PRACTICE*

The following are general guidelines to follow when using hand tools, whether furnished by the company or employee:

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- Do not make modifications to hand tools unless approved by the manufacturer.
- Never bypass or put out of service any safety device provided by the manufacturer on any power tool.
- Use hand tools only for the purpose for which they are designed.
- Inspect tools daily for defects and ensure they are in safe working condition.
- Tools with mushroomed heads must not be used.
- Tools with split, splintered or loose handles must not be used. All defective tools must be returned to the tool room.
- Return all tools to their proper place when not in use.
- There should be no repairs to electric tools unless person doing the repairs is qualified to do so. Return the tools to the Location Supervisor for repair.
- Never pull on an electric cord to unplug it.
- Never use an electric tool with wet hands or when standing on a wet surface.
- Protect electric cords and air hoses to prevent damage and stumbling hazards.
- All electric tools should be grounded.
- Never point a compressed air hose or tool at anyone. Never use compressed air to dust clothing or for cleaning floors.
- Never stand over an air hose. If an air hose breaks, do not go near it or attempt to grab it until the air pressure is shut off.
- Clamp or otherwise secure small or light material before attempting to ream, drill, grind, etc.
- Ensure that small power tools are not left where their cases may be broken by something falling or striking them.
- Guards meeting ANSI B15.1 shall be in place on all tools designed to accommodate guards. These guards may not be

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manipulated where its integrity or intended protection is compromised.

- The use of tools not in compliance with the above guidelines is prohibited. Prohibited tools shall be identified as unsafe by tagging, locking or rendering them inoperable or shall be removed from operation.

18.2 HAND TOOL SAFETY (PPE)

A face shield and safety glasses with side shields or goggles shall always be worn when using power tools. A sign shall be posted at each powered tool station requiring the wearing of a face shield and safety glasses with side shields or goggles.

Work gloves shall be worn when buffing, grinding or chipping. All buffers, grinders and chippers shall have guards.

Hearing protection shall be worn at all times when buffing. Most hand buffers, grinders and chippers produce noise levels above 100 decibels.

Buttoned long sleeve shirts shall be worn when buffing, grinding or performing other types of work where sparks or hot metals are present. Wire particles can cause injury striking bare arms.

Loose, torn or ragged clothing shall not be worn while working because it creates a special hazard when operating reamers and other machines with revolving spindles or cutting tools.

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18.3 GRINDING SAFE WORK PRACTICE

The following are general grinding standards:

- All employees and Contractors operating grinders and working near person using a grinder shall wear hearing protection.
- The grinder operator shall ensure that all guards are in place and the RPM rating of the wire wheels, discs and stones are equal to or greater than the RPM rating of the grinder.
- New discs and stones are to be installed and tested by authorized personnel only.
- Make smooth grinding contact with the work. Avoid "bumping" or impact action. Don't jam portable grinder into corners, etc. because the stone or disc may shatter.
- When grinders are not in use, they should be stored in a safe place. Never leave grinders lying around the shop floor where they are likely to be damaged.
- All grinders shall have guards installed as per the manufacturer's recommendations.
- Keep in mind that the most common causes of stone and disc breakage are:
 - Improper mounting of the stone and disc
 - Improper speed / wheel size
 - Side loading
 - Abusive operation
 - Careless handling and storage
- See that the wheel is properly dressed at all times. Do not use a stone or disc with broken edges.
- When using a grinder or power wire brush in the painting area, do not leave the tool where paint and dirt will get on or in it.

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- When grinding tools and small parts on a stationary grinder, do not wear gloves.
- Do not stand directly in front of a stationary grinder when first starting up.
- The maximum clearance between the wheel and the tool rest is 1/8". Do not attempt to make any adjustments to the tool rest while the grinding wheel is in motion.
- If the grinder is running too fast or slower than normal or appears to be defective in any way, report it immediately.
- If a wheel seems out of balance (indicated by excessive vibration in the grinder), have the condition checked.
- Handle stones and discs carefully to prevent dropping, bumping or any other action that is likely to cause damage. If a grinder is dropped or damaged, take it to the Location Supervisor immediately.
- Stones and discs should be stored in a room not subject to extreme temperature changes. Keep in mind that dampness and extreme temperature changes may affect the bonding of the stone.
- Stones and discs must be stored so as to protect them from chipping and breakage.
- Do not drop or throw a grinder on the floor as this may crack the stone or disc.
- Inspect stones and discs daily for cracks and defects. Do not use stones or discs with broken edges.
- Do not start a grinder with the stone or disc resting on the floor or on material.
- Never put a grinder down with the disc or stone still turning.

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- Never operate a grinder or wire brush when holding onto the air hose or electrical cord only.

18.4 CHIPPING/NEEDLE GUN SAFE WORK PRACTICE

The following are general chipping/needle gun standards:

- All employees operating chipping/needle guns and working near a person using a chipping/needle gun shall wear hearing protection.
- Inspect the chisels and the chipping/needle gun daily before use. Turn in any defective equipment to the Supervisor for repair.
- Inspect the air hose for any loose connections. Keep hose out of the aisles and walkways and arrange them in orderly fashion to eliminate tripping hazards.
- Never point a chipping/needle gun at anyone. Never throw the tool down or use it as a hammer to remove chipped metal.
- Open air valves gradually on air hose or tools so as to avoid sudden kickbacks.
- Maintain safe footing and be sure that the material being chipped is clamped or otherwise secured to prevent movement.
- When chipping tack welds apart, hold the chisel so that fingers will not be caught when the weld breaks.
- Do not weld on chipping/needle guns.
- Use only chisel for chipping gun.

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18.5 RIGGING EQUIPMENT

Rigging equipment for material handling shall be inspected as specified by the manufacturer, by a qualified person, before use on each shift, and as necessary during its use to ensure that it is safe.

The use and maintenance of rigging equipment shall be in accordance with recommendations of the rigging manufacturer, the equipment manufacturer and as follows:

- Rigging equipment shall not be loaded in excess of its recommended safe working load and load identification shall be attached to the rigging.
- Rigging equipment, when not in use, shall be removed from the immediate work area and properly stored and maintained in a safe condition.
- Hoist rope shall not be wrapped around the load.
- All eye splices shall be made in an approved manner, rope thimbles of proper size shall be fitted in the eye, except that in slings the use of thimbles shall be optional.
- When hoisting loads, a positive latching device shall be used to secure the load and rigging.
- Hooks, shackles, rings, pad eyes, and other fittings that show excessive wear or that are bent, twisted or otherwise damaged shall be removed from service. Custom designed grabs, hooks, clamps, or other lifting accessories for such units as modular panels, prefabricated structures and similar materials shall be marked to indicate the safe working loads and shall be proof-tested before use to 125% of their rated loads.

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- Tag lines shall be used unless their use creates an unsafe condition.
- Employees are prohibited from standing under a suspended load and shall keep clear of loads being lifted.
- Any rigging equipment deemed "defective" must be tagged and immediately removed from service.

18.6 WIRE ROPE

The following are specifications for wire rope:

- When wires are broken or rust/corrosion is found adjacent to a socket or end fitting, the wire rope shall be removed for service or re-socketed. Wire rope removed from service due to defects shall be cut up or plainly marked as unfit for further use as rigging.
- Wire rope clips attached with U-bolts shall have the U-bolt on the dead or short end of the rope. The clip nuts shall be retightened immediately after initial load carrying use and at frequent intervals thereafter.
- When a wedge socket fastening is used, the dead or short end of the wire rope shall have a clip attached to it or looped back and secured to itself by a clip (the clip shall not be attached directly to the live end).
- Protruding ends of strands in splices on slings and bridles shall be covered or blunted.
- Except for eye splices in the ends of wires and for endless wire rope slings, wire rope used in hoisting, lowering or pulling loads shall consist of one (1) continuous piece without knot or splice.

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- An eye splice made in any wire rope shall have not less than five (5) full tucks. Eyes in wire rope bridles, slings or bull wires shall not be formed by wire rope clips or knots. Wire rope clips shall not be used to splice rope.

18.7 WIRE ROPE SLING INSPECTIONS

All single leg, 2-part and 4-part slings shall be inspected and re-certified for use each year by a third party approved company. All inspections shall be of the non-destructive type. Any sling that does not meet industry standards shall be destroyed by cutting the sling into non-usable parts.

Inspections should be performed only by persons with sufficient experience and knowledge to properly apply the criteria for rejection when examining a given sling. This is particularly important since each of the items listed depends to some extent upon the judgment of the inspector. The following should be considered criteria for rejection:

- Six (6) randomly distributed broken wires in one (1) rope lay or three (3) broken wires in one (1) strand in one (1) rope lay. Snagged, nicked or severely bent wires count as broken wires. It is recommended that any sling with broken wires shall be taken out of service and returned to the manufacturer for re-certification.
- Abrasion, scrubbing or peeling causing loss of more than 1/3 the original diameter of outside individual wires
- Evidence of wire rope deterioration from corrosion
- Kinking, crushing or other damage that results in detrimental distortion of the wire rope structure

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- Any evidence of heat damage including bare conductor, ground or welding arc
- Any marked reduction in diameter either along the entire main length or in one (1) section
- Wire rope slings that are manually spliced
- Core protrusion along the main length
- End attachments that are cracked, deformed, worn, or loosened
- Any indication of strand or wire slippage in end attachments
- More than one (1) broken wire in the vicinity of a zinced on or swaged fitting
- All slings that do not pass inspection shall be destroyed by cutting the sling, cutting the sling eyes and disposing of the sling.

All ropes that have been idle for a period of a month or more due to shut-down or storage of a crane on which it is installed shall be given a thorough inspection before it is used. This inspection shall consist of the same criteria as the month inspection.

18.8 FIBER ROPE

The following are specifications for using fiber rope:

- Fiber rope shall be inspected prior to its initial use and before each use.
- Fiber rope shall not be used if it has been subjected to acids or excessive heat.
- The rope shall also be protected from abrasion by padding where it is fastened or drawn over square corners or sharp, rough surfaces.

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- All splices in rope slings shall be made in accordance with fiber rope manufacturer's recommendations.
- In manila rope, eye splices shall contain at least three (3) full tucks and short splices shall contain at least six (6) full tucks.
- Inlayed synthetic fiber rope and eye splices shall contain at least four (4) full tucks and short splices shall contain at least eight (8) full tucks.
- Strand end tails shall not be trimmed short immediately adjacent to the full tucks; this applies to both eye and short splices and all types of fiber rope. For fiber ropes, less than 1 inch in diameter, the tails shall project at least 6 rope diameters beyond the last full tuck. For fiber ropes 1 inch in diameter and larger, the tails shall project at least 6 inches beyond the last full tuck.
- For all eye splices, the eye shall be sufficiently large to provide an included angle of not greater than 60° at the splice when the eye is placed over the load. Knots shall not be used in lieu of splices.

18.9 SLINGS

The following are sling operating standards:

- The certification tag must be attached to all slings in use. If the tag is missing, the sling must immediately be red tagged, taken out of service and re-certified or destroyed.
- Slings that are unsafe shall not be used.
- Slings shall not be exposed to temperatures in excess of the manufacturer's recommendations
- A sling shall be used that is long enough to provide the maximum practical angle between the sling leg and the horizontal

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(minimum practical angle at the crane hook if vertical angles are used).

- Slings shall not be shortened with knots, bolts or similar methods.
- Twisting and/or kinking the legs of a sling are prohibited.
- A sling shall not be loaded in excess of its rated capacity.
- The load shall be centered in the base (saddle) of the hook to prevent point loading.
- Slings used in a basket hitch shall have the load balanced to prevent slippage.
- A sling shall be padded or protected from the sharp edges of its load.
- Hands and fingers shall not be placed between the sling and its load.
- Each sling shall be securely hitched to its load.
- The load shall be free to move before lifting and shall be kept clear of all obstructions.
- Shock loading shall be avoided.
- All personnel must stand clear of a suspended load.
- A sling shall not be pulled from under a load when the load is resting on the sling.
- All slings that do not pass inspection shall be destroyed by cutting the sling, cutting the sling eyes and disposing of the sling.
- NO chain slings shall be used on lifts or on loads.
- All slings shall be visually inspected before each use by the rigger and the crane operator.
- All slings shall be successfully inspected each month by Supervisory level personnel or designee and documented.

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18.10 RIGGING HARDWARE

Drums, sheaves and pulleys shall be smooth and free of surface defects which may damage rigging. The ratio between the diameter of the rigging and the drum, block, sheaves, and pulley tread diameter shall be such that the rigging will adjust itself to the bend without excessive wear, deformation or damage. In no case, will the safe diameter of drums, blocks, sheaves, or pulleys be reduced in replacement of such items unless compensating changes are made in terms of the rigging used and the safe loading limits. Drums, sheaves or pulleys having eccentric bores, cracked hubs, spokes, or flanges shall be removed from service.

Connections, fittings, fastenings, and attachments used with rigging shall be of good quality, of proper size and strength, and shall be installed in accordance with recommendations of the manufacturer.

18.11 SHACKLES

Shackles will be inspected at time of purchase and before each use looking for faults that may cause failure. Shackles will be used in accordance with manufacturer's recommendations for safe working loads. Shackles shall be manufactured by domestic manufacturers and shall be used in accordance to manufacturer's recommendations. Shackles will have a safety factor of five (5) times its working load limit. Shackles will have a safety nut that will be screwed in and a cotter pin that will be attached as recommended by manufacturer.

Shackles will not be eccentrically loaded and will be set up so that cable that is pulled will run across a fixed part of the shackle and cannot be unscrewed.

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18.12 HOOKS

The manufacturer's recommendations shall be followed in determining the safe working loads of the various sizes and types of specific and identifiable hooks. Any hook for which the manufacturer's recommendations are not available shall be tested to twice the intended safe working load before it is put into use. All records shall be maintained by the company that owns the hooks.

Open hooks are prohibited in rigging used to hoist loads. The safety latch for hooks that are used in hoist loads must have the safety latch that can be closed and locked and it must operate as intended by the manufacturer.

18.13 DRUMS

Drums shall have sufficient rope capacity with recommended rope size and revving to perform all hoisting and lowering functions. At least five (5) full wraps of rope shall remain on the drum at all times. A clamp securely attached to the drum with an arrangement approved by the manufacturer shall anchor the drum end of the rope. Grooved drums shall have the correct groove pitch for the diameter of the rope. The flanges on grooved drums shall project beyond the last layer of rope a distance of either 2 inches or twice the diameter of the rope, whichever is greater. The flanges on un-grooved drums shall project beyond the last layer of rope a distance of either 2.5 inches or twice the diameter of the rope, whichever is greater.

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18.14 SHEAVES

Sheaves shall be compatible with the size of rope used as specified by the manufacturer. Sheaves shall be inspected prior to use to ensure they are of correct size, properly aligned, lubricated, and in good condition. When rope is subject to riding or jumping off a sheave, the sheave shall be equipped with cable keepers.

18.15 EYE BOLTS

Shoulder-less eye bolts shall not be loaded at an angle. All eye bolts shall be inspected prior to use to check for damages and will be taken out of service if damaged. Eye bolts shall only be loaded in the plain of the eye and shall not be loaded at angles of less than 45° to the horizontal.

18.16 PAD-EYES/LIFTING POINTS

Flame cut pad eyes cut from plate, either mechanically or automatically, must be ground to give a smooth, notch free finish to the faces. All pad-eyes on all equipment shall be visually inspected by a certified (licensed) inspector annually and non-destructively tested (MPI, dye penetrant, UT etc.) at least once every year or whenever a visual inspection indicates deterioration, deformation, cracks, etc.

18.17 TRAINING

All required employees will receive training in Baker rigger awareness or in accordance with API RP 2D as required for operations. The required training will incorporate familiarization with rigging, hardware used for rigging, slings, and safety issues

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associated with rigging. Training will consist of classroom work and hands-on training. The hands-on training will consist of the following:

- Inspections
- Use of rigging
- Selection of equipment to be used
- Maintenance of rigging equipment.

After employee's successfully complete rigger training, records shall be kept on file that contain the employee's name, type of training, training date, and instructor's signature.

18.18 DROPPED OBJECTS

The effectiveness of the Dropped Objects Program depends upon the active support and involvement of employees who work with standards and jobs requiring it. This written plan is intended to be used in implementing standards to ensure that work involving hand tools and portable equipment is carried out safely to minimize the possibility of injury or harm to Baker employees. All tools and portable equipment must be secured against falling.

18.19 GENERAL REQUIREMENTS

- Tools and portable equipment used at height shall be adequately secured to either the user or the workplace.
- Tools and portable equipment shall have a lanyard attachment point that does not compromise the tools effectiveness.
- All tools, lanyards and attachment points shall be inspected prior to and after use.

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- At “height” tools shall be used for all tasks undertaken at 6 feet or above. In addition, where there is the potential for tools to drop more than 6 feet.
- If any tool or equipment is dropped, or if the retention system failed such that there was potential for the tool or equipment to drop, it must be reported immediately followed up by an investigation.
- While working at height is on-going, a “Drop Zone” shall be established below the worksite and barricaded.

All equipment purchased for use “at height” must meet or exceed OSHA, ANSI and ASTM standards before Baker can purchase them. Baker will request and evaluate information on the system based on its performance during testing to determine if the system meets required standards and obtain comprehensive instructions on the system's proper use and application.

When working on customer locations, all affected Baker employees must participate in a pre-job or daily safety meeting and JSA. All hazards involving tools and portable equipment “at heights” must be identified and either eliminated or special precautions shall be addressed.

18.20 DROPPED OBJECTS - JOB SAFETY ANALYSIS

The JSA shall identify all tools and portable equipment that will be used “at height”. This will create a register of all potential dropped objects.

18.21 WEATHER

Any work “at height” shall be evaluated for forecasted weather impact. This needs to be considered in the JSA.

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18.22 TOOL SPECIFICS

- Multi-part tools shall have systems to prevent separation (e.g. sockets must be located onto extension bars, knuckles, ratchets and breaker bars).
- All hammers shall have steel or steel composite shafts, non-slip handles and the head must be fastened to the shaft in such a way to prevent separation.
- Cold chisels and associated hand protecting guards shall have retention in place for both chisel and guard.

18.23 LANYARDS AND ATTACHMENT POINTS

- All tooling used “at height” shall be lanyard attached to the tool bag, the equipment loop on the harness or the work area.
- The lanyard attachment point on the tool must still enable the tool to be used effectively.
- The length of lanyard should be appropriate to be the unhindered function of the tool.
- The standard use of wrist lanyards is not recommended.
- The lanyard attachment points on tools should be manufactured in such a way that they cannot be removed.

18.24 HEAVY TOOLS AND EQUIPMENT

- The use of heavy tools and hand-held machinery at height must be specifically risk assessed.
- All heavy tools and hand-held machines used at height must be secured against falling when in use and while being transported.

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- If a heavy tool or item of equipment has fallen and a lanyard has arrested the fall, both the lanyard and the tool/equipment shall be removed from service until they can be fully inspected and confirmed as fit for purpose.
- Securing points for tools and machines must be in place above the work site and the securing device must be as taut as possible.

18.25 POWER HAND TOOLS

- For electrically powered tools, the supply cable sheave must be secured to the power tool case and the supply socket to prevent excessive strain being placed on internal conductors.
- For pneumatic tools, the air hose must be secured to prevent strain on the fittings at either end.
- Retention that is fitted to power tools shall never be solely to the power cable or air hose.

18.26 TOOL BAGS, POUCHES AND BELTS

- Tools shall be taken aloft in some form of kit bag.
- The kit bag shall be attached to the user and leave both hands free.
- Tools are to be attached to the kit bag and not merely put in it.
- Carrying pouches shall always be used for radios and any other portable equipment with no dedicated attachment point.
- Tool lanyards shall be used between the tools and belt or bag.

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18.27 PREVENTATIVE MEASURES

Each affected Company employee is required to wear a hard hat in designated areas, but when exposure to falling objects from a structure above a working area is a potential risk, other measures will be considered. Toe-boards, guardrail systems, canopy structures, or barricades shall be used when necessary.

18.28 TOE-BOARDS

When used as protection from falling objects, toe-boards shall:

- Be a minimum of 3.5 inches high and no more than 1/4-inch clearance above the surface
- Be solid or have openings not over 1 inch in greatest dimension
- Be capable of withstanding a force of at least 50 pounds applied in any downward or outward direction at any point
- Be erected along the edge of the overhead walking/working surface for a distance sufficient to protect employees below.

If tools, equipment or materials are piled higher than the top edge of a toe-board, an additional type of protection, paneling or screening shall be placed from floor to guardrail to protect employees from falling objects.

18.29 GUARDRAIL SYSTEMS

When used as protection from falling objects, guardrails shall have openings small enough to prevent passage of potential falling objects.

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18.30 TRAINING

Baker employees exposed to dropped objects will receive training that consists of instruction on how to recognize the hazards of dropped objects and the standards to be followed to minimize these hazards. Employees shall be trained on:

- Securing of Tools and Portable Equipment
- Approved Tool Bags and Lanyards

18.31 FORKLIFTS

All forklift operators shall be trained, qualified and authorized in accordance with the Forklift Operators Program before operating a forklift on company property and/or worksites. A list of authorized forklift operators shall be conspicuously located and updated quarterly.

18.32 OPERATOR RESPONSIBILITIES

The forklift operator shall conduct an inspection of the forklift prior to beginning a shift each day. The Forklift Pre-Use Inspection Form shall be used for this purpose. If a condition is found during this inspection that adversely affects the safety of the forklift operation, the forklift shall not be used until the condition is corrected. This form will be filed in the forklift maintenance file and shall be maintained for two (2) years.

Check the forklift for mechanical defects. Report all mechanical defects promptly to the Supervisor. Continuously observe the gauges in the instrument panel to be sure they indicate a normal condition.

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Be sure that work platforms are securely anchored to the forks of the forklift before being raised. Do not overload the forklift; check capacity plate.

Avoid bumping into objects and be sure that feet and legs are inside the running lines of the forklift.

Before dismounting or leaving the forklift, always shut off the ignition and apply the hand brake. Do not leave the forklift unattended with the motor running.

18.33 FORKLIFT MAINTENANCE

Forklifts shall be operated and maintained in accordance with the manufacturer's recommendations. A forklift maintenance file shall be maintained in each facility. This file shall contain a record of all maintenance conducted on each forklift.

Forklift shall have an operational strobe light and reverse alarm.

18.34 FORKLIFT GUIDELINES

Maximum forklift speed shall not exceed 5 miles per hour (mph). Do not ride the clutch pedal when driving, as this will cause the clutch to slip and wear (manual transmission only).

Inspect a stacked load before moving it; be sure it will not spill. When hoisting, or tilting, either shift into neutral or depress clutch pedal all the way to the floor. When picking up a load, drive the forks directly under the center of the load as far as they will go. Adjust the distance between forks to best suit the load to be lifted in order to prevent any deformation

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of the load and for the greatest possible stability. Drive the load about 2" to 4" above the floor level so that there is less chance of overturning.

When moving, it is advisable that the load be tilted back toward the center of the forklift. The floor should be smooth and level. The driver shall drive with caution.

When depositing highly elevated loads, be sure the forklift is as close to the stacked material as possible and that the brakes are applied before tilting the load forward.

The forklift should be operated in reverse when going down ramps or ditches with a load or when visibility is poor due to a bulky load on the forks. Prior to backing, operator must physically turn and look behind forklift in both directions before backing up. A signal person shall be used if line of vision is obscured to the forklift operator. Keep watch on all clearances (front, back, top, and sides).

Avoid steering when forklift is standing still; the slightest travel speed on the forklift will save wear on steering linkage.

Always shut off the ignition when changing Liquid Petroleum Gas (LPG) fuel cylinders. Make sure that all connections on fuel lines are tight before starting the engine: Place empty cylinders in designated storage areas. Acetylene or other gas cylinders must always be transported and stored in an upright position and in proper racks.

The forks on the forklift should be lowered to the floor level when not in use. Drive only the forklift assigned by the Supervisor.

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Skids and stacking racks in poor condition shall not be used in hauling material.

Riding on forks of forklift is prohibited at all times except in special maintenance situations which have been authorized by a Supervisor and when the appropriate work platform is added specifically for passengers. Stunt driving and horseplay will not be permitted.

Do not block aisles with material. Partially blocked aisles make it necessary for forklifts to raise heavy loads while driving down the aisles.

Pad-eyes shall be visually inspected (for deterioration, cracks, deformation, etc.) on all loads prior to each lift.

18.35 ENCLOSED PERSONNEL LIFT PLATFORM

Always lift platform slowly from and to floor. Never travel with employee on platform. Always chain opening before lifting platform. Never leave the floor of platform during an operation, like standing on mid rail to reach higher. Whenever the platform is being used to offload parts on an upper deck, the chained area will be facing out (use fall protection). Whenever the platform is being used for an operation that calls for the employee or Contractor to stay in the platform, the chained area will be facing toward the forklift (use fall protection).

Always chain the platform to the forklift to avoid the platform from coming off of the forks.

The forklift operator shall stay in the seat of the forklift with the engine running and the emergency brake set during the entire work and operation.

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Never put too many items on the platform; it is better to make more lifts to upper deck. Never stand by or cross under the platform during any operation.

18.36 COMPRESSED AIR USED FOR CLEANING

Compressed air used for drying or cleaning must be limited to 30 psig by a pressure regulator or pressure-reducing nozzle, as specified in OSHA 29 CFR 1910.242 or any successor regulation.

Do not, for any reason, direct compressed air toward a person. Compressed air introduced into the body can cause injury or death. When using compressed air for cleaning in a dry and dusty situation, the Employee or Contractor must wear protective eyewear that meets ANSI standards.

19.0 CHEMICAL EXPOSURE

19.1 INDUSTRIAL HYGIENE

The Basin HSE Manager shall perform an Industrial Hygiene Survey of each facility in order to anticipate, recognize, evaluate, and control any environmental conditions that may adversely affect the health of employees or have other undesirable consequences.

Depending upon the findings of the Industrial Hygiene Survey, additional Industrial Hygiene Monitoring may be necessary to identify or quantify a hazard.

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Where the use of air purifying respirators is anticipated, Industrial Hygiene Monitoring is frequently necessary to assure contaminate concentrations are within the protective capacity of the respirator.

19.2 EMPLOYEE RIGHT-TO-KNOW

The findings of the Industrial Hygiene Survey and the results of any monitoring must be communicated to the affected workers.

19.3 MANAGER'S RESPONSIBILITY

The Division Manager shall ensure that:

- The disposal of chemicals and/or other materials as waste are minimized. All efforts will be made for the economical reusing, recycling and/or the finding of other commercial uses for chemicals/materials that are employed in/or that are byproducts of our manufacturing processes.
- All members of their crew are provided with written special handling standards for any materials identified by warning labels or signs
- Each employee is properly trained to ensure personnel safety and protection of the environment. Documentation of this training shall be retained in the job/project file.

20.0 BENZENE

In the event benzene exposures over the Permissible Exposure Limit (PEL) are identified on company property, a Compliance Program shall be implemented. The written plan shall include a schedule of development and implementation of engineering and work practice

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controls. This plan shall also be reviewed and revised as appropriate to reflect the most recent exposure monitoring data. Upon request, this plan will be furnished for examination and copying to any duly authorized regulatory agency, affected employees and designated employees' representatives.

20.1 GENERAL

Benzene is a colorless, sweet-smelling, highly flammable, toxic hydrocarbon. Found in both natural and synthetic products, benzene is widely used in the United States. Benzene can be found in coal, petroleum, crude oil and gasoline in its natural state at petroleum, refining, producing and pipeline operations. It is also used in the manufacturing of detergents, plastics, resins, pesticides and nylon and synthetic fibers.

Some adverse health effects may include feeling breathless, irritable, euphoric, dizzy or nauseated; eye, nose and respiratory irritation; and some may experience headaches, convulsions and loss of consciousness. Long term effects could involve various blood disorders.

20.2 REGULATED AREAS

There are no known regulated areas where airborne concentrations of benzene exceed the PEL or Short-Term Exposure Limit (STEL) at Company facilities or on the typical worksite and therefore exposure monitoring is not applicable.

When company representatives are made aware of customer contingency plans, employees and Contractors will be informed of and instructed to follow provisions of customer plans and will be informed where benzene is used on customer facilities or of areas of exposure and, where applicable will be made aware of additional plant safety

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rules. Benzene is highly flammable and vapors may form explosive mixtures in the air. Employees and Contractors should ensure fire extinguishers are readily available and be aware that smoking is prohibited in areas of exposure.

20.3 PERMISSIBLE EXPOSURE LIMITS

The PEL to airborne concentrations of benzene in an eight (8) hour time-weighted average is one part per million (1 ppm). The STEL to airborne concentrations of benzene is five parts per million (5 ppm) over a fifteen (15) minute time-frame.

21.0 HYDROGEN SULFIDE (H₂S)

Hydrogen Sulfide, also known as H₂S, is a potentially deadly gas sometimes associated with oil and gas deposits. Occasionally, Company employees and Contractors are asked to work on locations where H₂S is present. Employees and Contractors shall be notified if they will be working on a H₂S location and they must be properly trained and equipped prior to performing any work activity where H₂S is potentially present.

21.1 BAKER H₂S STANDARD

All field locations that warn of potential H₂S exposures shall be treated as if H₂S is present and entered only with the required approved protective equipment immediately available. All Company personnel must receive an initial site briefing before beginning work. Employees and Contractors must be briefed on and follow all site-specific contingency plans.

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No person shall enter an area where H₂S concentrations are known or suspected to exist without having current training in H₂S operations. No employee shall enter a tank, vessel or any other confined space without appropriate training or respiratory protection.

No Baker employee shall enter an area where H₂S concentrations are known or suspected to be greater than 10 ppm by volume in the air without having current training in H₂S operations and without wearing proper respiratory protection. No person shall wear any type of respirator without having current training and without being physically fit.

No tank, line, valve, flange, etc. shall be opened to the atmosphere which may release H₂S unless all personnel have been removed from the area or unless all personnel are wearing supplied air respirators rated for IDLH (Immediately Dangerous to Life and Health) atmospheres.

A standby person is required when personnel may be exposed to any IDLH atmosphere. This standby person shall be trained and equipped to provide rescue in an IDLH atmosphere.

If a H₂S alarm is sounded, employees and Contractors shall go immediately to the evacuation assembly area and shall not reenter without authorization or proper respiratory protection.

Employees and Contractors shall always work in two (2) man teams whenever in a H₂S atmosphere or a potential H₂S atmosphere.

21.2 PROPERTIES AND CHARACTERISTICS

H₂S is toxic, colorless, odorless in large quantities, soluble, flammable, and creates toxic by-products. Sulphureted hydrogen, hepatic gas,

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sulfur hydride, rotten egg gas, and stink damp are other names for H₂S. Although H₂S is invisible, the following are a few ways to recognize its presence:

- H₂S smells like rotten eggs in low concentrations. This smell should not be trusted for two reasons:
- Other chemical odors can hide or mask the smell
- With continued exposure, the ability to smell becomes paralyzed causing a false sense of security. More critical symptoms could develop quickly.
- H₂S is heavier than air and therefore collects in low-lying areas (i.e. tanks, manholes, confined spaces, etc.)
- H₂S is highly flammable and in concentrations of 43,000 — 460,000 parts per million (ppm), it can explode with the right temperatures present
- H₂S emits Sulfur Dioxide (SO₂) when burned causing severe irritation to eyes, nose, throat, and respiratory system
- H₂S is soluble in water, oils and most organic liquids. When it is agitated or when temperatures increase, solubility decreases and higher concentrations of H₂S are released.
- Acid solutions containing H₂S can cause severe irritation to skin and eyes
- H₂S reacts violently to strong oxidizers, metal oxides, peroxides, strong alkalis, active metals, and some plastics and rubbers

21.3 EFFECTS OF EXPOSURE

Breathing H₂S is the most dangerous route of exposure. Effects on people vary depending on length of exposure and individual characteristics such as weight and general health conditions. Length of

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exposure determines whether or not the ability of smell is reliable. For example, sense of smell is lost within minutes if exposed to more than 100 ppm, but loss of smell can also occur if exposed to more than 50 ppm over an hour time. Because H₂S has poor warning properties, it may be difficult to detect breathing hazardous levels until more serious symptoms develop. The following are general guidelines to determine exposure:

- Up to 100 ppm: Rotten egg smell; Burning eyes; Respiratory tract irritation
- Prolonged exposure of up to 100 ppm: Loss of smell; Headache; Dizziness; Coughing
- From 100 to 300 ppm: Drowsiness; Severe eye and throat irritation; Possible pulmonary edema (fluid in lungs, difficulty breathing)
- Up to 600 ppm: Loss of reasoning and balance; Eventual unconsciousness

Exposure of more than 600 ppm will cause death almost immediately. Again, exposure affects everyone differently and these are only general guidelines to determine exposure. Although breathing H₂S is the most dangerous exposure, contact with liquids containing H₂S can severely irritate skin and eyes. Generally, the health effects of exposure start with eye irritation, and progress to attacking the center of the brain which affects breathing control.

The following are H₂S exposure limits established by OSHA:

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- PEL — Permissible Exposure Limit for H₂S is 10 ppm. This is an amount that can be breathed safely based on an eight (8) hour day over a five (5) day work week.
- STEL — Short-Term Exposure Limit for H₂S is 15 ppm. This is the safe amount of exposure that can occur over a fifteen (15) minute period. The STEL should be checked four (4) times a day.

21.4 SPECIAL PERSONAL PROTECTIVE EQUIPMENT (PPE)

There are two types of special respiratory PPE that must be used when there is an exposure to H₂S risk:

- Air Line Units consist of a hose that supplies air during normal use and should be equipped with an escape unit in case line fails. Escape Units are completely self-contained and equipped with an air cylinder rated for five (5) minutes. These should be used only to escape from a hazardous area.
- SCBA (NIOSH — certified), or Self Contained Breathing Apparatus, consists of an air cylinder with a fifteen (15) minute or more air supply and is used to enter a hazardous area. This is the most flexible type of respiratory PPE because they allow movement from one area to another.

21.5 ATMOSPHERIC TESTING

The atmosphere shall be monitored with fixed monitors continuously whenever any person is working in a known or suspected H₂S area.

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When working in areas that are suspected to have H₂S levels greater than 10 ppm, Employees and Contractors must wear a personal H₂S monitor with audible and visual alarms that will alert employees and contractors H₂S levels have reached 10 ppm. If any personal H₂S alarms, work must be stopped and employees report to their assigned muster station. Employees and Contractors will then be advised to do.

Hand held detection instruments should be utilized for spot-checking areas. All electronic hand held instruments shall be calibrated per the manufacturer's specifications. All field calibrations shall be documented and retained on file.

21.6 TRAINING

Each Employee and Contractor shall be trained in H₂S operations before being allowed entrance to any area that is known or suspected to contain H₂S. The following topics shall be covered in this training as a minimum:

- The hazards, properties and characteristics of H₂S and SO₂
- The sources of hydrogen and sulfur dioxide
- Operation and maintenance of gas detectors
- Symptoms of H₂S and SO₂ exposure
- Use, operation, maintenance, and limitations of supplied air respirators
- The "Buddy System" for work and emergencies
- Emergency Response Plans
- The effects of wind and other weather conditions on H₂S operations

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All personnel working in any area that is known or suspected to contain H2S shall attend a H2S refresher-training program annually on or before the anniversary date of their basic course.

All training shall be documented, certification of completion given to employee and a copy maintained on file. Records must be kept for at least five (5) years.

22.0 HAZARD COMMUNICATION

Potentially hazardous chemicals are used in company operations. In order to protect the safety and health of employees, the chemicals and products containing chemicals (unless exempted by OSHA) shall be evaluated and information concerning their hazards shall be communicated to all personnel with a potential for exposure. This document is specifically designed to meet the various requirements of OSHA Hazard Communication (29 CFR 1910.1200).

22.1 PROGRAM ADMINISTRATOR

The Hazard Communication (HAZCOM) program administrator for each facility shall be the local HSE Representative.

NOTE: This person is responsible for assuring the program is maintained in compliance with the OSHA Hazard Communication Standard. However, it is not expected that the HSE Representative will personally perform all HAZCOM related activities. With the approval of the Division Manager, the HSE Representative may delegate activities, such as maintaining the Chemical Inventory List, to other employees.

22.2 SAFETY DATA SHEETS (SDS)

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SDS for Company proprietary mixtures are developed by third party qualified industrial hygienists in accordance with 29 CFR 1910.1200.

SDS are developed and provided by manufacturers and/or suppliers of hazardous materials and products. The SDS provide information on the hazardous components of materials and products, the safety and health hazards, the precautions to take, the method of disposal, etc. SDS for all hazardous materials and products used in the workplace shall be maintained in the SDS Book located in each Facility.

The SDS for products that are no longer used and obsolete versions of revised SDS must be maintained in an inactive SDS file. These SDS must be preserved for at least thirty (30) years.

22.3 SAFETY DATA SHEETS (SDS) BOOK

SDS for each of the chemicals listed on the hazardous products and/or materials list shall be collected and placed in the SDS book in alphabetical order and each separated by a divider (colored page). All SDS will be maintained in paper form. When new products or materials are used on company property, the hazardous products and/or materials list and the SDS shall be updated to include the new products or materials and its SDS shall be placed in the SDS book.



22.4 BAKER HAZCOM STANDARD

Each facility shall maintain an up-to-date HAZCOM Plan. The plan shall include the following components:

- A chemical inventory List of products and materials (regardless of quantity) that are listed by OSHA as hazardous and/or labeled

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with one or more of the following terms: Hazardous, Dangerous, Caution, Warning, etc.

- Safety Data Sheets (SDS) for all products and materials
- Labels on all containers for the products and materials
- Methods of communicating the contents of piping
- Methods of communicating the hazards of non-routine tasks
- Methods of sharing HAZCOM information with other companies on jobsites
- Training materials
- A facility location drawing showing all entrances, buildings, storage areas, and the location of the products and materials.

A copy of this plan shall be available in each facility for review by any interested employee or other personnel with a potential for exposure to chemicals at the facility.

22.5 CHEMICAL INVENTORY LIST

Each Facility shall create a Chemical Inventory List of chemicals that are present or are likely to be present and are listed by OSHA as hazardous and/or labeled by the manufacturer as Hazardous, Dangerous, Caution, Warning, etc. The Chemical Inventory List will consist of chemicals listed in alphabetical order, by chemical trade name, and must be maintained in this plan and as the index of the SDS book.

22.6 SDS CONTENTS

Each SDS shall be in English and contain the following:

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- Chemical identity used on the label are:
 - Single Substance — chemical and common name
 - Mixture tested as a whole — chemical and common name of the ingredients that contribute to the known hazards and the common name of the mixture itself
 - Mixture not tested as a whole — chemical and common name(s) of all ingredients which have been determined to be health hazards and which comprise 1% or greater of the composition (0.1% or greater for carcinogens); chemical and common names(s) of all ingredients which have been determined to be health hazards and which comprise less than 1% (0.1% for carcinogens) of the mixture, if there is evidence that the ingredient(s) could be released from the mixture in concentrations which would exceed exposure limits or present a health risk to employees; and chemical and common name(s) of all ingredients which have been determined to present a physical hazard when present in the mixture
- Physical and chemical characteristics of a chemical (i.e. vapor, flash point, etc.)
- Physical hazards of the chemical including the potential for fire, explosion and reactivity
- Health hazards of the chemical including signs/symptoms and medical conditions recognized as being aggravated by exposure
- Primary route(s) of entry of a chemical
- Exposure limits of a chemical
- Whether chemical is listed in the National Toxicology Program Annual Report on Carcinogens or has been found to be a potential carcinogen in the International Agency for Research on Cancer Monographs or by OSHA
- General applicable precautions for safe handling and use for chemical including appropriate hygienic practices, protective

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measures during repair and maintenance of contaminated equipment, and standards for clean-up of spills and leaks

- General applicable control measures for chemical (i.e. engineering controls, work practices, Personal Protective Equipment (PPE), etc.)
- Emergency and First Aid standards for chemical exposure
- Date of preparation of the chemical SDS or the last change to it
- Name, address and telephone number of the chemical manufacturer importer or Company facility responsible for preparing or distributing the SDS who can provide additional information on the chemical and appropriate emergency standards
- If there is no relevant information for the categories listed above, the category shall be marked to indicate that no applicable information was found.

22.7 OBTAINING SDS

Each company facility is responsible for gathering SDS received from manufacturers and suppliers. An SDS must accompany all chemicals being shipped by the company. First time shipments of hazardous chemicals to company facilities must be accompanied by an SDS and with the first shipment after a SDS is updated. If necessary, an SDS must be requested from the manufacturer, supplier or appropriate company personnel. If the manufacturer, supplier or company personnel become aware of any significant information regarding the chemical, the SDS must be updated within three (3) months.

According to 29 CFR 1910.1200 (g)(6)(iv), a chemical manufacturer or supplier must provide the Company with an SDS upon request.

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22.8 JOB LOCATIONS

While on job locations, company Supervisory level personnel will maintain the appropriate SDS to provide other personnel present access to the SDS of the company product or materials onsite. The company Supervisory personnel shall inform other personnel onsite of any precautionary measures that need to be taken.

22.9 LABELING SYSTEM

Labels are intended to provide primary hazard information while SDS provides detailed information. The labeling system used in each company facility is based primarily on labels provided by suppliers and manufacturers.

The company will ensure that each container of hazardous chemicals received, stored or shipped from company property will be labeled with the following information:

- Identity of the hazardous chemical
- Appropriate hazard warnings (alternatively, words, pictures, symbols or combination thereof which provide at least general information regarding the chemical's hazards and provide employees with the specific information regarding the physical and health hazards of the hazardous chemical may also be used)
- Name and address of the chemicals responsible party.

The company shall also ensure that all information on labels are written legibly in English and are prominently displayed on the container. Supplementary or duplicate labels in other languages may be provided,

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but may NOT be substituted for those written in English. Labels containing symbolic information, such as the HMIS label of the NFPA label, are acceptable provided that all personnel in the work area have been trained in their meaning.

22.10 PORTABLE AND STATIONARY CONTAINERS

Portable containers that contain hazardous chemicals transferred from a labeled container are not required to be labeled if used immediately by the employee who performed the transfer. If the employee does not intend to use the chemical immediately or must leave it unattended, the portable container must be labeled with all appropriate information as listed above. All stationary containers, such as tanks, vessels, etc., must be labeled with all appropriate information as listed above.

22.11 EMPLOYEE TRAINING

Upon initial assignment or hire, all Company employees shall receive training on hazardous chemicals in their workplace. Training will consist of classroom instruction and hands on training.

Successful completion of training will be documented in each employee training file. All training will include the following:

- Requirements of the Hazard Communication Standard, 29 CFR 1910.1200
- Any operations in their work area where hazardous chemicals are present
- Location and availability of the HAZCOM program, SDS book and how employees can obtain and use appropriate hazard information

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- Methods and observations that may be used to detect the presence or release of a hazardous chemical
- The physical and health hazards of the chemicals in the work area
- Emergency standards, work practices and necessary PPE
- Presentation of the Company HAZCOM plan, including labeling system.

Additional training and information will be provided to employees when new hazardous chemicals are introduced into the workplace or when current SDSs are updated with significant information.

22.12 NON-ROUTINE TASKS

If any non-routine tasks are performed, employees will be notified of the hazards they may be exposed to while performing their duties.

22.13 ACCESS

The company shall make the HAZCOM plan, SDS and any other related documents available to employees, their designated representatives, Assistant Secretary of Labor, and the Director upon request. SDS books must be kept in an area where they are readily accessible to personnel with a potential for exposure to chemicals.

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23.0 STEPPING, LIFTING & HANDLING HAZARDS

23.1 *SLIPS, TRIPS AND FALLS*

Good housekeeping is the best and most sure method of preventing slips, trips and falls in the workplace. Drawers shall be completely closed after every use. Electrical cords and wires shall be secured away from walkways and work areas. Materials shall not be stacked in such a way as to cause an avalanche into the working or walking areas. Spills shall be cleaned up immediately.

Working and walking areas shall have sufficient lighting. Being alert to the activity around the office will help prevent a hazard before it becomes an injury. Always use a stepladder for overhead reaching.

23.2 *WALKWAYS-STAIRWAYS*

- When walkways and steps are provided, they must be used. Do not take shortcuts and never run on walkways or stairs. Stairways shall be adequately illuminated.
- Use the handrails when walking up or down stairways or steps. When carrying tools or materials, always keep one hand free to use the handrails on stairways. Anytime railings are not provided, employees must have supplemental protection against falling or must wear a safety harness.
- Keep railings tight and sturdy. Smooth any areas that start to splinter.
- Tools, equipment and materials must not be left on walkways. Secure hoses and electrical cords to the floor or ground whenever they are laid across walkways.

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- All steps, walkways and stairs must be kept free of obstructions and slippery materials such as oil and grease. Non-skid surface material shall be applied and maintained on any surface that is likely to be continuously or frequently slippery.
- During winter, be extra careful of icy walkways. Keep hands free and out of pockets while traversing them.
- Broken or unserviceable stairways and walkways shall not be used. They shall be well marked and made serviceable as soon as possible following detection. Loose boards or carpeting shall be repaired immediately.

23.3 *MANUAL LIFTING*

The following are general standards to follow when lifting materials:

- Evaluate the load (weight, size, shape, sharp edges, and points). Is it possible to see over and/or around the load? In a choice between bodily injury and damage to the equipment, the body needs to be protected. But remember, if the work was planned and followed the correct standards, the choice would not have to be made.
- The maximum lifting load limit for one (1) employee shall not exceed 50 pounds; unless the Employee or Contractor has completed a Functional Capacity Evaluation (FCE). In situations where employees have completed a FCE, the Employee or Contractor is authorized to lift to the maximum lift performed during the FCE evaluation.
- Mentally select the best travel path. Do not rush.
- Decide if help is needed (i.e. another person, forklift, crane, dolly, etc.) before starting to lift a load

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- Use the proper body position as determined by the size and shape of the load
- Wear gloves when handling rough or jagged edged objects
- Report any/all injuries immediately to the Supervisor
- When lifting containers:
 - Squat, do not stoop or bend from the waist and keep back straight
 - Place right foot parallel to one edge of the box (opposite, if left-handed)
 - Place left hand on the corner of the box or as far as it is comfortable. On circular or irregularly shaped objects, place left hand at a point that is comfortable.
 - Place right hand along or under the edge of the container (tip the container slightly to get a grip)
 - With the back, straight, lift up using the leg muscles NOT the back muscles
 - Walk slowly. To change directions, stop, then turn feet in the desired direction. Do not turn body at the waist. Lean back slightly when traveling.
 - To place the object down without injury, stop walking. Keep back straight and move left foot back slightly. Squat down, taking the strain on the leg muscles. Let the front left point of the container or its front edge rest on the ground and slip right hand up from under the right side of the container and lower the container flat on the floor/ground. Stand up smoothly **KEEPING THE BACK STRAIGHT.**
- When lifting rods, poles and piping:
 - Tie, tape or strap such material near each end of the bundle; one tie is not enough. Make sure no one/nothing is behind the bundle.
 - The maximum bundle length permitted is 8 feet

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- At the rear of the bundle, squat down with right foot forward parallel to the bundle. Keep the back straight and slip one hand then the other under the bundle. Lift the bundle and straighten up smoothly, loading the bundle up onto a shoulder.
- Walk slowly. Travel with the bundle pointed down so that it can be controlled in the front.
- To turn, stop and check behind for people or things may get hit with the bundle. Move left foot first into the turn. Keep back straight and do not turn the body.
- To set the bundle down without injury, stop walking; place the front end of the bundle securely on the floor/ground. Back down the bundle, squat down and lower the bundle to the floor/ground. Keep back straight, stand up and back away from the bundle.
- Multiple Person Carry
- Decide on a leader to give directions and follow safe lifting guidelines.

23.4 LADDERS

Ladders must be maintained in good condition. Ladders should be closely inspected when purchased or installed and re-inspected at least twice a year. Check the condition of the ladder before it is used and after any occurrence that could affect its safe use and correct any defects.

23.5 LADDER GUIDELINES

The following are general ladder guidelines, including job-made ladders:

- Ladders shall be placed on stable, level surfaces.

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- Safety climbs that are installed on ladders must be used. Safety climbs have safety harness attachments that allow personnel to climb without detaching their safety harness after each step.
- All permanent ladders must be securely fastened at both top and bottom. Long ladders should also be secured at intermediate points.
- The combined weight of the employee and load should not exceed the manufacturer's rated capacity. No more than one (1) person should be on a ladder at the same time where possible. If a job requires more than one (1) person, a second ladder or a scaffold should be considered.
- Remove any oil, grease or slippery material from the ladder and from the shoes.
- When raising a ladder, make sure it will not contact an electrical line. When performing electrical work that requires the use of a ladder, use an approved fiberglass ladder. Fiberglass ladders must not be painted. Metal (aluminum) ladders must not be used.
- Wooden ladders are prohibited.
- Ladders must not be placed in front of doors that open toward the ladder unless the door is locked or guarded.
- When climbing, or descending a ladder, a person should face the ladder and hold the side rails, not the rungs. Climbers should not carry tools or other encumbrances in their hands. A tool belt or pouch should be used for holding small tools and a hand line should be used to raise or lower heavy or bulky objects.
- Never work on an unsecured ladder in windy conditions.
- A person shall not stand on the top two (2) steps or the spreader of a stepladder. A stepladder should not be used as a straight ladder (i.e. used while still folded). It is a good safety practice for someone to hold or steady a stepladder for a person working near its top.

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- Extension ladders should properly overlap between sections and shall be placed at a 4:1 ratio.
- Ladders must not be used as scaffold members or for any purpose for which they are not intended or designed.
- Always use an approved ladder or stool to reach articles high above the floor. Never use a swivel chair or other makeshift device to reach high places.
- ☐ Ladder rungs, cleats and steps on fixed and portable ladders, including job-made ladders shall be parallel, level and uniformly spaced when the ladder is in position for use and shall be spaced not less than ten inches apart, or more than fourteen inches apart when measured between center-lines of the rungs, cleats and steps.

23.6 PORTABLE LADDERS

When portable ladders are used on hard surfaces, they must be equipped with non-skid footing or securely fastened to prevent slipping. The top of the ladder should be secured, or another person should hold the ladder. The base of the ladder should be placed away from the wall by about one-fourth of the working length of the ladder.

Unsecured portable ladders should not be left standing unattended. When ladders are used to access an upper landing surface, the side rails must extend at least three feet above the surface or the ladder must be secured at its top to a rigid support that will not deflect and must include grab rails to assist employees.

When working on a portable ladder, never extend farther than the arm's length to reach work; move the ladder to avoid the possibility of an incident.

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Defective portable ladders must be tagged, repaired or destroyed. Damaged ladders may not be given to employees or other personnel. Damaged ladders placed in the trash must be rendered useless.

23.7 SCAFFOLDS

The purpose of these guidelines is to provide company employees and Contractors with information regarding the construction and use of scaffolding. This information is to be used as a guide when erecting, dismantling or modifying scaffolds up to 3 frames high or 21 feet in height. When it is necessary to erect or dismantle scaffolds above this height or in unusual situations, the company requires that professional scaffolding companies be used.

23.8 TRAINING

In the event that company employees must perform work on scaffolding, those employees or Contractors working on the scaffolding must receive proper training regarding associated hazards by a qualified trainer. The training shall address the following:

- Access and use
- Structural instability
- Falls
- Falling objects
- Overloading
- Electrocution

NOTE: Although employees may not be directly involved in setting up or disassembling scaffolds, they should understand the requirements of

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the regulations so that they can monitor and avoid unsafe scaffold conditions.

23.9 DEFINITIONS

- **Competent Person** — One who is capable of identifying existing and predictable hazards in the work environment and who has the authority to take prompt corrective measures to eliminate them.
- **Qualified Person** — One who has the education, professional standing or experience to successfully solve or resolve scaffolding problems.
- **Maximum Intended Load** — This is the total weight of all people, equipment, tools, materials, and transmitted loads that is reasonably expected to be on a scaffold or scaffold component.
- **Rated Load** — The manufacturer's specified maximum load to be lifted by a hoist or to be applied to a scaffold or scaffold component.
- **Guardrail System** — A vertical barrier consisting of, but not limited to, top rails, mid-rails and post erected to prevent employees from falling off a scaffold platform or walkway to lower levels.
- **Lifeline** — A component consisting of a flexible line that connects to an anchorage at one end to hang vertically (vertical lifeline), or that connects to anchorages at both ends to stretch horizontally (horizontal lifeline), and which serves as a means for connecting other components of a personal fall arrest system to the anchorage.
- **Full Body Harness** — A design of straps that may be secured above the employee in a manner to distribute the fall arrest

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forces over at least the thighs, pelvis, waist, chest, and shoulders, with means of attaching it to other components of a personal fall arrest system.

- Platform — A work surface elevated above lower levels. Platforms can be constructed using individual wood planks, fabricated planks, fabricated decks, and fabricated platforms.

23.10 SCAFFOLD TAGS

A competent person shall affix a tag indicating the status of the scaffolding. Scaffolding shall be inspected prior to use and periodically by a competent person. Scaffolding that is found to be unsafe by a competent person shall be tagged "Not Safe for Use" and shall not be used until repairs are made or the scaffolding is taken down.

NOTE: Only qualified and competent persons are allowed to modify scaffolding systems. Non-qualified personnel may create hazardous situations.

24.0 RESPIRATORY PROTECTION

This program provides the standards to ensure the safety and health of employees working in atmospheres that have the potential for exposure to harmful dusts, fogs, fumes, mists, gases, smokes, sprays, vapors, and particulates encountered in the course of work such as welding, metal shaping and finishing, surface preparation (air driven particulate blasting), application of finishes and coatings, confined space entry, and well servicing operations. This program complies with 29 CFR 1910.134, Respiratory Protection.



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The facility HSE Coordinator (or their designee) is responsible for developing, implementing, enforcing, and maintaining this Respiratory Protection Plan and will satisfy the role of "Administrator" for the purposes of this standard.

24.1 PROGRAM EVALUATION

This Respiratory Protection Plan shall be evaluated annually to assess the effectiveness of the plan and to ensure that it is properly implemented. Employees using respirators shall be consulted to assess their views on the effectiveness of the plan and to identify any problems in respirator fit, appropriate respirator selection, proper use, and maintenance.

Note - To select a respirator with an appropriate filtering capacity, the existing baseline exposure assessment must be reviewed. Shift length must be taken into account and the occupational exposure limit (OEL) adjusted accordingly. Any exposure beyond 50% concentration (action level), the exposure concentration must be compared to the shift adjusted OEL to determine the required protection factor and enable the correct respirator and filter combination to be selected to reduce exposure to no more than 50% exposure where practical.

24.2 RECORDKEEPING

The following is a summary of documentation pertaining to the Respiratory Protection Plan:

- Records of medical evaluations must be maintained in the employee's confidential medical records
- Fit testing records containing the employee's name, type of fit test performed, specific make, model, style, and size of respirator

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tested, date of test and indication of pass or fail status must be determined and kept on file.

All records pertaining to this plan shall be made available to affected employees and appropriate regulatory agencies upon request.

25.0 RADIATION

25.1 NATURALLY OCCURRING RADIOACTIVE MATERIAL (NORM)

Naturally Occurring Radioactive Material (NORM) is found in barium salts dissolved in water from oil and/or gas reservoirs. These dissolved salts are carried to the surface processing equipment during production operations and deposited on the interior surfaces of the processing equipment whenever the fluid flow stream experiences a drop-in pressure. Other sources may include some consumer products, security devices, construction materials, food and containers, medical

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standards, project wastes, trash, and/or scrap materials technically enhanced naturally occurring radioactive material (TENORM), etc.

The radioactivity of NORM is very low. The effects of NORM on the human body are not known at this time; therefore, several states have published requirements to control the handling and disposal of NORM. The company standards are equal to or greater than the state requirements for controlling NORM and for personal protection in the presence of NORM and before work begins.

25.2 NORM WASTE RETENTION

Solid oilfield waste (i.e. paraffin, sand, etc.) taken from the equipment will be stored in fifty-five (55) gallon drums (or other suitable containers approved by the HSE Department) until removed from the site as industrial waste by an approved Waste Disposal Contractor, unless the waste is contaminated with heavy metals or chemicals. These containers and/or drums will be labeled with the following:

- Description (NORM and identification number)
- Hazard warning (radioactive, flammable, corrosive, etc.)
- Date put in storage (month/day/year)
- Reading taken at the surface (in uR/hr)
- Reading taken at a three (3) foot distance from the surface (in uR/hr)
- Weight of container/drum (in pounds)
- RA 226 reading (in pCi/g)
- RA 228 reading (in pCi/g)
- Description of contents (i.e. liquids, solids, sludge, etc.)
- Location

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The storage drum(s) must have a secondary containment system in the event that the drum(s) begin to leak. This containment system must be kept clean and dry so that any leaking drum(s) will be readily apparent. Drums holding non-compatible materials must have a partition between them that will not allow the materials that are non-compatible to react with each other.

Waste shall be shipped within sixty (60) days (time is calculated starting when the accumulation drum is sealed and moved to the storage area). In no case, will hazardous waste be kept on the facility for longer than ninety (90) days (time is calculated starting when the accumulation drum is sealed and moved to the storage area) for any reason.

The Division Manager shall ensure that only disposal service companies approved by the company are used by each facility. Therefore, before calling a waste disposal company, contact the HSE Department for pricing and other necessary information.

25.3 RADIATION PERSONAL PROTECTION

There are three basic protection concepts that should be applied when exposed to radiation: time, distance and shielding. An employee's exposure to radiation is limited by the amount of time he is exposed to a source. By reducing the time an employee is exposed to a radiation source, the total amount of exposure is minimized. The same concept applies to distance. The amount of exposure can be minimized by increasing the distance from source. In addition, shielding, or putting a barrier like PPE in place can minimize radiation exposure.

PPE described below shall be worn during testing, cleaning of equipment, and handling of NORM contaminated materials. The PPE

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shall be sanitized or disposed of with the NORM holding scale after each use. Appropriate PPE includes:

- Nitrile gloves
- Safety goggles
- High Efficiency Particulate Air (HEPA) cartridge respirator, equivalent to PROTECH Model #1490 half mask with PROTECH Model #G108 cartridge filter elements for HEPA dust, mist, asbestos, radionuclides, and fumes
- Rubber boots
- Tyvek coveralls
- Duct tape

25.4 EMPLOYEE AND CONTRACTOR TRAINING

Only employees and Contractors designated, trained and qualified for NORM testing and handling by the company shall conduct this work. Training meets the Occupational Safety and Health Administration guidelines (29 CFR 1910.96) as well as Louisiana Title 33, Part XV Radiation Protection pertaining to all employees and Contractors with potential occupational exposure to NORM. Training is conducted on an annual basis with a course objective of providing employees with the skills to recognize and detect NORM as it relates to their specific job functions. Upon completion of training, the Employee and Contractor will be knowledgeable and familiar with:

- The History of NORM
- Methods of Identification
- Biological Effects
- Quality Factors Associated with NORM (Alpha, Beta & Gamma Radiation)

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- Health Risk
- Ways to Minimize Risk
- Proper Use of Personal Protective Equipment (e.g., Respirators w/ HEPA Filters, Glove, etc.)
- Routine & Emergency Response

25.5 RECORDS

A report of the results of each inspection and test will be maintained in the facility office. NORM survey information shall be recorded on the NORM Survey Data Report. This record shall be maintained in the job file in the location office. If a survey indicates that the equipment has a NORM level of 15 micro R/hr above the background level of the area, a copy of the report is to be sent to the equipment owner, if other than the company. Records of all maintenance and calibrations of the instrument and/or components shall be maintained with the instrument (in the carrying case) and in the equipment file in the facility office. A report on the removal of NORM from the equipment shall be maintained in the job file. A copy of the waste disposal contractor's shipping manifest, waste profile and shipping manifest signed by the receiving facility will be kept in the job file. The Division Manager shall be copied on the report of disposition of the NORM holding materials.

26.0 BLOODBORNE PATHOGENS

This plan covers all Company employees. It is stressed that any and all First Aid care provided by any employee is on a voluntary basis. Rendering emergency medical care is not a requirement for any Company job.

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It is the right of all employees to review the Exposure Control Plan.

26.1 EXPOSURE DETERMINATION

Baker is an oilfield service company and does not provide medical treatment. Several employees are trained and authorized to administer basic First Aid / CPR and therefore have a potential for occupational exposure to blood or other potentially infectious materials.

Exposure is defined as any skin, eye, mucous membrane, or parental contact (piercing, such as cuts, abrasions) with blood or other body fluids of another person while on duty for the Company. Without regard to the use of Personal Protective Equipment (PPE), any Company employee trained in First Aid / CPR has the potential for occupational exposure. These employees hold positions in any of the following job classifications: Management, Administration, Shop, or Field.

26.2 SAFE PRACTICES

Engineering and Work Practice Controls (safe practices) shall be used to eliminate or minimize employee exposure. Safe practices and controls are examined and maintained on a regular schedule.

Universal precautions shall be observed to prevent contact with blood or other potentially infectious materials. Under circumstances in which differentiation between body fluid types is difficult or impossible, all body

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fluids shall be considered potentially infectious materials; therefore, it shall be assumed that all blood and other body fluids are contaminated with pathogens.

Always wear PPE approved for protection against bloodborne pathogens when providing First Aid or cleaning accident scenes, wash basins, shower stalls, toilets, bathroom floors, bathroom walls, counter surfaces, or any other surface that may have been exposed to blood or body fluids.

All standards involving blood or other potentially infectious materials shall be performed in such a manner as to minimize splashing, spraying, spattering, and generation of droplets of these substances. Mouth pupating/suctioning is prohibited.

27.0 CONFINED SPACE ENTRY

A Confined Space is any space that meets ALL the following conditions:

- Any space/area large enough and so configured that a human can bodily enter and perform assigned work
- Any space/area with limited or restricted means of entry or exit
- A space/area not designed for continuous human occupancy.

A Permit Required Confined Space is a confined space meeting ANY ONE of the following conditions:

- Any confined space that contains or has the potential to contain an atmospheric hazard
- Any confined space that contains a material that has the potential for engulfing an entrant

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- Any confined space which has an internal configuration such that an entrant could be trapped or asphyxiated by inwardly converging walls or by a floor which slopes downward and tapers to a smaller cross-section
- Any confined space containing any other recognized serious safety or health hazard.

27.1 PERMIT REQUIRED CONFINED SPACES

Baker groups normally are not authorized to enter permit required confined spaces. If circumstances are such that a Baker Employee or Contractor must enter a confined space, standard Confined Space Permit must be followed exactly. Employees or Contractors working authorized to enter permit required confined spaces must be trained to Confined Space Entrant level or Attendant level dependent on the scope of the job. Each company facility shall evaluate their equipment and determine whether or not there are any confined spaces as defined above. ALL confined spaces meeting the definition for permit required confined space as defined above should be labeled as follows:

PERMIT REQUIRED CONFINED SPACE – AUTHORIZED PERSONNEL ONLY

The majority of the company facilities allow entry into non-permit required confined spaces. These facilities must also label any non-permit required confined spaces to warn employees/Contractors or inform employees/Contractors that the employee is entering into a confined space. Employees or Contractors working in these facilities will receive Awareness Level Training that will instruct them how to identify a confined space and it will explain that they are prohibited from entry into permit required confined spaces.

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27.2 EMPLOYEE PARTICIPATION

The Company will inform all affected personnel on the development and implementation of all aspects of the Confined Space Entry Plan and will make all associated information available upon request.

Employees and Contractors are allowed to participate in and review calibration of gas detectors. The results of all gas testing associated with the entry shall be communicated to employees and contractors involved with the entry.

28.0 HEARING CONSERVATION

Each Baker facility shall identify any noise source at their location that has an intensity of 85 decibels (A-weighted scale) or higher. The following steps are to be taken during the initial sound level (noise) survey and any time thereafter that the noise sources may change. This change could be an increase/decrease in the sound (noise) level of the location.

The HSE Representative will review the results of the survey and determine if further testing will be necessary. If it is determined that further testing is necessary, a formal sound level (noise) survey will be conducted by a qualified occupational noise specialist.

28.1 AFFECTED EMPLOYEE COMPLAINT

If any affected employee is concerned about the level of (sound) noise in the facility, that affected employee may review the Hearing Conservation Survey for the facility. Any questions or concerns about this program should be directed to the HSE Representative or other

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Supervisory level personnel. The affected employee complaint will be evaluated to determine what action is required.

28.2 AFFECTED EMPLOYEE TRAINING

Each company affected employee shall be trained on the requirements of the Hearing Conservation Program upon hire and annually thereafter. The training shall consist of the following:

- The effects of noise on hearing
- The purpose of hearing protectors
- The advantages/disadvantages of hearing protectors
- The attenuation of various types of hearing protectors
- Instruction on the selection, fitting, use, and care of hearing protectors
- The purpose of audiometric testing
- Explanation of the audiometric test standards.

The effective instruction of affected employees with little or no education or non-English speaking affected employees will be insured by the efforts of the Training Department assisted by an individual with bilingual capabilities if necessary.

Affected employees successfully completing hearing conservation training shall receive a certification that contains the employee's name, type of training, training date, and instructor's signature. All training records are maintained on file.

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28.3 AFFECTED EMPLOYEE ACCESS

All company affected employees and their representatives shall, upon request, have access to OSHA 29 CFR 1910.95 Standard and/or any information materials supplied by the U.S. Department of Labor Assistant Secretary and the Director. The Company shall, upon request, supply all materials related to the Company hearing conservation training to the U.S. Department of Labor Assistant Secretary and the Director.

28.4 FACILITY FIRE PREVENTION

All Company office spaces and bunkrooms are designated as **NO SMOKING** areas and smoking is allowed only in areas designated by the Division Manager.

Keep areas around heat producing equipment (i.e. copiers, computers, appliances, etc.) clear of all combustible and flammable materials. Electrical appliances are fire hazards when left unattended and shall be turned off at the end of the day.

Keep extension cords in good condition. Do not connect more than one electrical device to one extension cord.

The most frequent cause of office fires is arson and any suspicions and/or suspicious persons shall be reported.

Know the Emergency Response Plan for the building. Keep all walkways and exits clear and well-marked with exit signs that will light when the power is lost.

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Fire extinguishers are provided in all areas of each building. These units are to be used on small fires that can be extinguished quickly. If an employee is not trained in the use and operation of fire extinguishers, they shall not attempt to put out a fire; they shall give the alarm and evacuate.

29.0 WELDING, CUTTING, BRAZING, AND BURNING

29.1 PERSONAL PROTECTIVE EQUIPMENT (PPE)

The following items shall be worn when welding, cutting, brazing, and burning:

- Approved welder's lenses (#10, #11, #12 filter glass) and a close-fitting face shield when welding. Personnel who are cutting shall wear number #5 lenses and a face shield.
- Safety goggles and a full-face shield while using chipping hammers, wire brushes, air hoses, grinders, etc., to remove scale or flux. Do not use a chisel with a mushroomed head to minimize the danger of flying chips or particles.
- Approved respirators when welding or cutting metals in compliance with the Company Respiratory Protection Program.
- Non-skid safety toe boots and snug fitting clothing. Do not wear clothing that is contaminated with oil, gasoline or other flammable material.
- Above the ankle height safety shoes or boots, turned down cuffs and closed pockets (to ward off sparks).
- Leather gloves on both hands and arm protection, such as long sleeve shirts and/or leather uppers.
- Hearing protection equipment when cutting overhead or where loud noises may cause damage to hearing (i.e. where

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compressed air is being used, around sandblast operations, etc.).

29.2 *WELDING STANDARDS*

The following are general welding standards:

- Only those employees properly trained in the safe operation and use of welding equipment are permitted to perform welding standards.
- Inspect the work area and all welding equipment prior to welding or burning to ensure that sparks or hot metal will not cause an explosion. Never use oil, grease or other lubricant on or around burning apparatus, as oil or grease in the presence of oxygen under pressure may ignite or explode.
- Remove or securely cover fuel, oil drums and batteries.
- Guard or protect as necessary electrical conduits, gas piping, steam lines, tanks, sewers, etc.
- Utilize fire blankets as necessary to protect equipment and material.
- Position welding curtains to minimize danger of flash injury to eyes of others in work areas and moving vehicles.
- Arrange welding and cutting hoses and cables to prevent damage from falling sparks, hot metal or sharp edged pieces of metal. Handle hot metal with pliers or tongs, not welding gloves.
- Take necessary precautions to keep welding equipment dry and well ventilated, especially when welding in damp or wet areas.
- Ground all equipment. Before using any questionable equipment, report to the Supervisor any condition that can be a safety hazard. A qualified electrician shall make electrical repairs and

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installation. Do not use lifting cables, chains or slings for grounds.

- Use cables of adequate size for the amperage with no insulation breaks and fasten them securely to the welding machine, ground clamp and electrode holder.
- Use the proper names of gases when referring to them [i.e. acetylene, oxygen (not air), natural gas, carbon dioxide, etc.].
- Any welding of lead based metals, zinc, cadmium, mercury, beryllium or exotic metals or paints must be done with the proper respiratory protection and ventilated appropriately.
- First aid equipment must be available at all times.

29.3 GAS FLAME CUTTING AND HEATING STANDARDS

The following are gas flame cutting and heating standards:

- Only those employees properly trained and instructed in the safe operation and use of oxygen-charged equipment are permitted to perform gas flame cutting and heating standards. Hydrocarbons shall be stored and used well away from oxygen equipment. Do not lubricate or clean oxygen equipment with oil-based products.
- Before burning, welding or heating, the worker shall be responsible for checking conditions on the opposite side or the underside of materials to be welded to see that all danger of fire or injury is eliminated. The location of a properly functioning approved fire extinguisher close to the job shall be verified.

Never:

- Heat an object lying flat on a concrete floor; be sure there is an air space between the material and the floor, as concrete will explode under extreme heat

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- Leave an automatic cutting machine or welding unattended
- Use oxygen or other gases to substitute for compressed air in pneumatic tools or other devices
- Use a gas cylinder as a prop when cutting material
- Let hot slag fall on cylinders, hoses or on flammable material
- When leaving an area, always turn the gas and oxygen off at the wall manifold or regulator, bleed the hoses down, and properly store the equipment. Keep hoses clear of sparks and hot slag areas.
- Inspect all torches, hoses, gauges, and other burning equipment regularly. Any leak must be repaired immediately. Faulty equipment must be reported to the Supervisor and shall never be used.
- When using a hand torch, watch out for people working around the area.
- When cutting, use standard burning goggles or approved burning face shield with at least #5 shades. Keep the cutting torch away from rags or clothing soaked in oil or flammable liquid.
- When lighting a torch, always purge the line first. Make sure the torch is equipped with a tip before lighting. Use friction lighters or pilot light to ignite torches; do not use Zippos or disposable lighters. Point the torch away from cylinders and from other persons when lighting.

Never:

- Leave burning or heating torches on the floor
- Leave a lighted torch unattended; turn it off
- Use a burning torch to warm up frozen regulators
- Leave a torch inside a confined space or container. A leak could mean a disastrous explosion.

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- Use torches as a chipping hammer to remove slag or scale
- When using automatic burner, see that the track is properly supported.
- Keep work area clean and hoses coiled and stored neatly.
- All cutting torches shall have a check valve installed in the gas and oxygen lines between the nozzle valve and the tank valve or manifold valve and between the hose and the torch.
- The welding/burning gas line pressure shall be set at 12 to 15 PSIG for normal welding or burning operations. The oxygen line pressure shall be set at 25 to 35 PSIG for normal welding or burning operations.
- Any cutting or burning of lead base metals, zinc, cadmium, mercury, beryllium or exotic metals or paints must be done with the proper respiratory protection and ventilated appropriately.
- First aid equipment must be available at all times.

29.4 ARC WELDING STANDARDS

The following are general ARC welding standards:

- Employees performing arc welding must be acquainted with the requirements of 1910.254, Arc Welding and Cutting. Employee performing gas-shielded arc welding must also be familiar with the American Welding Society's Recommended Safe Practices for Gas-Shielded Arc Welding (A6.1-1996).
- Never change polarity on the welding machine while welding is in progress.
- Only qualified and authorized persons shall repair welding machines and equipment. Welders are expected to do preventative maintenance and routine servicing on semi-automatic and shielded welding guns, cables and wire feed units;

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report any equipment defect or hazard to the supervisor; and ensure the use of defective equipment is discontinued until repaired.

- Be careful to avoid shock when changing electrodes in the electrode holders. Do not use defective cables and electrode holders.
- Place all welding rod stubs in the proper stub buckets. Carry welding rods in rod holders or buckets to prevent chipping, soiling, or wetting them. Do not carry welding rods in clothes pockets. Do not leave rods in rod holders or buckets. Humidity from the air will contaminate them.
- Turn off welding machines during lunch and at quitting time. Roll up the leads at quitting time. Be sure and keep excess cable rolled up at all times.
- Materials being welded on shall be directly grounded.
- Employees conducting welding or burning or working in an area where welding or burning is being conducted shall NOT carry a cigarette lighter on them or in their tool kit. No lighters are to be carried into the work area.
- No electric hoist shall be left attached to material being welded unless specifically authorized by the Supervisor.
- Welding shall never be done in or near areas where there may be flammable materials, explosive gases or vapors without authorization and proper instruction from the Supervisor.
- Never weld on power chipping guns, grinders, torches, or compressed gas cylinders.
- Never weld when standing in water.

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30.0 COMPRESSED GAS CYLINDERS

Use only the type of gas that the compressed gas equipment is designed for; always refer to gases by their proper names. Be familiar with and follow material handling rules.

Do not allow sparks, flames or other sources of ignition to come into contact with cylinders, regulators or hoses of a compressed or liquefied gas system. All cylinders, empty or full, shall be stored away from open flame furnaces, radiators, flammable and volatile liquids, or other hot places. Never let hot slag fall on cylinders, hoses or on flammable material. Never use a gas cylinder as a prop when cutting material.

When moving pressurized cylinders, always make sure they are in their proper containers, the valves are turned off, and the valve caps are fastened securely. Close the valve before installing the valve cap. Ensure that the cylinder valve is shut off, except when cutting or welding is in progress. Always close the cylinder and line valves at end of each shift and purge hose and torch of gases. Do not leave the valves on empty cylinders open.

Cylinders shall be stored, transported, and used in an upright, secured position 20 feet from any flammable gases or petroleum products. Oxygen and acetylene must be stored 20 feet from each other or have a five-foot firewall between the two gases. In storing, secure them with a chain or bar to prevent toppling and secure bottom of bottles to prevent kick-out. See that protective caps are in place when cylinders are not in use. Cylinders shall be transported in a safe manner and in the recommended container. They shall not be handled roughly; do not drop them or permit them to fall or strike other cylinders or materials.

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Inspect gas hoses and supply gas valves frequently. Clean new hoses to ensure that they are free of dust and talcum before using. Keep torches, regulators, hoses, valves, etc. free of oil, dirt and dust.

Use proper connections; never use connections that do not fit properly. Make sure all connections are gas-tight. Always use the proper regulator to reduce gas pressure from a compressed gas cylinder.

Never use white lead, grease or pipe fitting compound in making joints on gas systems; oxygen under pressure contacting such materials can be very dangerous. NEVER use oxygen as a substitute for compressed air in pneumatic tools or other devices.

30.1 MARKING AND LABELING OF CYLINDERS

Compressed gas cylinders shall be legibly marked with either the chemical or the trade name of the gas. Such labeling shall not be readily removable. Whenever possible, the marking shall be on the shoulder of the cylinder. Marking shall conform to the requirements of the American National Standard Method for Marketing Portable Compressed Gas Containers to Identify the Material Contained, ANSI Z48.1-1965.

30.2 MARKING AND LABELING OF PIPING AND HOSE LINES

Each pipe carrying compressed gas should be marked with the name of the gas, the pressure of the gas and the direction of flow. Each hose carrying compressed gas shall be identified by the color of the line. Each hose and/or pipe shall be color-coded as per the following:

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- Combustible and Flammable Gas: **RED**
- Oxygen: **GREEN**
- Compressed Breathing Air: **YELLOW**

31.0 ELECTRICAL SAFETY

This policy covers work by both qualified and unqualified persons. Qualified persons are personnel who have training in avoiding the electrical hazards of working on or near exposed energized parts and unqualified persons are those with little or no training. This policy establishes electrical safety-related work practices for working on, near, or with the following installations:

- Premises wiring
- Wiring for connection to supply
- Wiring at host facilities
- Any other energized electrical system with a voltage greater than 50 Volts

31.1 *EVALUATION/NOTIFICATION*

The Division Manager or their designee shall evaluate their facilities to determine where high risks from electrical hazards exist. Jobs/areas that present such risks will be designated as electrical hazard areas.

Exposed employees shall be informed of electrical hazard areas by danger signs, awareness training, or by another equally effective method. A sign reading DANGER ELECTRICAL HAZARD, AUTHORIZED PERSONNEL ONLY or similar language will be used to satisfy the requirement for untrained employee/visitor notification. The

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following alerting techniques shall be used to warn and protect

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employees from hazards which could cause injury due to electric shock, burns or failure of electric equipment parts:

- Safety signs, safety symbols, or accident prevention tags shall be used to warn personnel about electrical hazards that may endanger them
- Barricades shall be used in conjunction with safety signs where it is necessary to prevent or limit access to work areas where non-insulated energized conductors or circuit parts are present. Conductive barricades may not be used where they might cause an electrical contact hazard.
- If signs and barricades do not provide sufficient warning and protection from electrical hazards, an attendant shall be stationed to warn and protect employees.

31.2 TRAINING

Once an evaluation of jobs and areas of the facility are performed, training will be conducted for personnel at risk of electric shock. Personnel with a job title listed in Table S-4 (29 CFR 1910.332) face such a risk and must be trained. Other personnel who may reasonably be expected to face a comparable risk of injury due to electric shock or other electrical hazards must be trained. Table S-4 (29 CFR 1910.332)

Typical Occupational Categories of Employees Facing a Higher Than Normal Risk of Electrical Incident:

- First-line Supervisors
- Electrical and Electronic Engineers
- Electrical and Electronic Equipment Assemblers
- Electrical and Electronic Technicians

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- Electricians
- Industrial Machine Operators
- Material Handling Equipment Operators
- Mechanics and Repairers
- Painters
- Riggers and Roustabouts
- Stationary Engineers
- Welders

NOTE: Workers in the above listed groups do not need to be trained if their work or the work of those they supervise does not bring them or the employees they supervise close enough to exposed parts of electric circuits operating at 50 volts or more to ground for a hazard to exist. Personnel who are classified as unqualified persons shall be trained in any electrical-related safety practices which are necessary for their safety. Personnel who are classified as qualified persons shall be trained in the safety-related work practices that pertain to their respective job assignments. First-line Supervisors, in conjunction with the Maintenance Manager, are responsible for the development of a training outline detailing the electrical hazards associated with a work area. As a minimum, qualified person shall be trained in the following:

- The skills and techniques necessary to distinguish exposed live parts from other parts of electric equipment
- The skills and techniques necessary to determine the nominal voltage of exposed live parts
- The clearance distances specified in 29 CFR 1910.333(c) and the corresponding voltages to which the qualified person will be exposed.
- All personnel shall receive the appropriate level of training regarding the energy control Lock-out / Tag-out (LOTO) program.

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31.3 ELECTRICAL SAFE WORK PRACTICES

Supervisors shall develop and ensure the use of standardized safety-related work practices to prevent electric shock or other injuries resulting from either direct or indirect electrical contacts.

The safety-related work practices shall be consistent with the nature and extent of the associated electrical hazards.

Live parts to which personnel may be exposed shall be de-energized before working on or near them, unless it can be demonstrated that de-energizing introduces additional or increased hazards or is unfeasible due to equipment design or operational limitations. Live parts that operate at less than 50 volts to ground need not be de-energized if there will be no increased exposure to electrical burns or to explosion due to electric arcs.

If an employee is exposed to contact with parts of fixed electric equipment or circuits which have been de-energized, the circuits shall be LOTO or both in accordance with the requirements of the LOTO program.

If the exposed live parts cannot be de-energized, Supervisors shall ensure that other safety-related work practices are used to protect personnel who may be exposed to the electrical hazards involved. Such work practices shall protect employees against contact with energized circuit parts directly with any part of their body or indirectly through some other conductive object. Only qualified employees may work on electric circuit parts or equipment that has not been de-energized.

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Contractor personnel shall be required to provide proof of training for working on energized circuits and shall be familiar with the proper use of special precautionary techniques, Personal Protective Equipment (PPE), insulating and shielding materials, and insulated tools.

If work is to be performed near overhead lines, the lines shall be de-energized and grounded or other protective measures shall be provided before work is started. If the lines are to be de-energized, arrangements shall be made with the person or organization that operates or controls the electric circuits involved to de-energize and ground them. If protective measures (i.e. guarding, isolating or insulating) are provided, these precautions shall prevent employees from contacting such lines directly with any part of their body or indirectly through conductive materials, tools or equipment. Unqualified persons are prohibited from performing this type of work.

When unqualified personnel are working in an elevated position or on the ground near overhead lines, the location shall be such that the person and the longest conductive object they may contact cannot come closer to any unguarded, energized overhead line than the following distances:

- For voltages to ground 50kV or below--10 ft. (305 cm)
- For voltages to ground over 50kV--10 ft. (305 cm) plus 4 in. (10 cm) for every 10kV over 50kV

When a qualified person is working in the vicinity of overhead lines, whether in an elevated position or on the ground, the person may not approach or take any conductive object without an approved insulating handle; unless:

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- The person is insulated from the energized part (gloves, with sleeves if necessary, rated for the voltage involved are considered to be insulation of the person from the energized part on which work is performed)
- The energized part is insulated both from all other conductive objects at a different potential and from the person
- The person is insulated from all conductive objects at a potential different from that of the energized part. Company vehicles or mechanical equipment capable of having parts of its structure elevated near energized overhead lines shall be operated so that a clearance of 10 ft. (305 cm) is maintained. If the voltage is higher than 50kV, the clearance shall be increased 4 in. (10 cm) for every 10kV over that voltage.

Personnel standing on the ground shall not contact the vehicle or mechanical equipment or any of its attachments, unless:

- The individual is using protective equipment rated for the voltage
- The equipment is located so that no non-insulated part of its structure (that portion of the structure that provides a conductive path to employees on the ground) can come closer to the line than 10 ft. (305 cm). If the voltage is higher than 50kV, the clearance shall be increased 4 in. (10 cm) for every 10kV over that voltage.

If any vehicle or mechanical equipment capable of having parts of its structure elevated near energized overhead lines is intentionally grounded, personnel working on the ground near the point of grounding shall not stand at the grounding location whenever there is a possibility of overhead line contact. Additional precautions, such as the use of barricades or insulation, shall be taken to protect personnel from

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hazardous ground potentials depending on earth resistance and fault currents, which can develop within the first few feet or more outward from the grounding point.

Supervisors will ensure that personnel do not enter spaces containing exposed energized parts unless adequate illumination is provided. Where lack of illumination or an obstruction precludes observation of the work to be performed, personnel shall not perform tasks near exposed energized parts. Personnel shall not reach blindly into areas which may contain energized parts.

When personnel work in a confined or enclosed space (i.e. a manhole or vault) that contains exposed energized parts, protective shields, protective barriers or insulating materials shall be provided to avoid inadvertent contact with these parts. Doors and hinged panels shall be secured to prevent them from swinging and causing personnel to contact exposed energized parts.

Conductive materials and equipment that are in contact with any part of a person's body shall be handled in a manner that will prevent them from contacting exposed energized conductors or circuit parts. Supervisors will ensure prewritten safety standards are in place and that all personnel are trained when long dimensional conductive objects (i.e. ducts and pipes) in areas with exposed live parts are used. Other protective measures (i.e. the use of insulation, guarding and material handling techniques) will be considered and used to minimize the hazard.

Portable ladders shall have non-conductive side rails if they are used where personnel or the ladder could contact exposed energized parts.

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Conductive articles of jewelry and clothing (i.e. watch bands, bracelets, rings, key chains, necklaces, metalized aprons, cloth with conductive thread, or metal headgear) may not be worn if they might contact exposed energized parts.

Personnel may not perform housekeeping duties where energized parts present an electrical contact hazard at such close distances to the parts that there is a possibility of contact unless adequate safeguards (i.e. insulating equipment or barriers) are provided. Electrically conductive cleaning materials, including conductive solids such as steel wool, metalized cloth and silicon carbide, as well as conductive liquid solutions, shall not be used in proximity to energized parts unless standards are followed which will prevent electrical contact.

31.4 USE OF ELECTRICAL EQUIPMENT

Portable equipment shall be handled in a manner which will not cause damage. Flexible electric cords connected to equipment may not be used for raising or lowering the equipment. Flexible cords may not be fastened with staples or otherwise hung in such a fashion that it could damage the outer jacket or insulation.

Portable cord-connected, plug-connected equipment and extension cords shall be visually inspected before use on any shift for external defects (i.e. loose parts, deformed and missing pins, or damage to outer jacket or insulation) and for evidence of possible internal damage (i.e. pinched or crushed outer jacket). Defective or damaged electrical equipment shall be removed from service:

When an attachment plug is to be connected to a receptacle, including any on a cord set, the relationship of the plug and receptacle contacts

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shall first be checked to ensure that they are of proper mating configurations.

Extension cords used with grounding-type equipment shall contain an equipment grounding conductor. Adapters which interrupt the continuity of the equipment grounding connection shall not be used.

Attachment plugs and receptacles may not be connected or altered in a manner which would prevent proper continuity of the equipment grounding conductor at the point where plugs are attached to receptacles. Additionally, these devices may not be altered to allow the grounding pole of a plug to be inserted into slots intended for connection to the current-carrying conductors.

Portable electric equipment and flexible cords used in highly conductive work locations (such as those inundated with water or other conductive liquids) or in job locations where employees are likely to contact water or conductive liquids shall be approved for those locations. Energized plug and receptacle connections may be handled only with insulating protective equipment if the condition of the connection could provide a conducting path to the employee's hand (i.e. a cord connector is wet from being immersed in water). Personnel's hands may not be wet when plugging and unplugging flexible cords and cord/plug-connected equipment if energized equipment is involved.

Load rated switches, circuit breakers or other devices specifically designed as disconnecting means shall be used for the opening, reversing or closing of circuits under load conditions. Cable connectors not of the load-break type, fuses, terminal lugs, and cable splice connections shall not be used for such purposes except in an emergency.

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After a circuit is de-energized by a circuit protective device, the circuit shall not be manually reenergized until it has been determined that the equipment and circuit can be safely energized. The repetitive manual re-closing of circuit breakers or reenergizing circuits through replaced fuses is prohibited.

Over current protection of circuits and conductors shall not be modified even on a temporary basis beyond that allowed by 29 CFR 1910.304(e), the installation safety requirements for over current protection. Only Company qualified persons may perform testing work on electric circuits or equipment. Test instruments and equipment and all associated test leads, cables, power cords, probes, and connectors shall be visually inspected for external defects and damage before the equipment is used. If there is a defect or evidence of damage that might expose an employee to injury, the defective or damaged item shall be removed from service and no employee may use it until repairs and tests necessary to render the equipment safe have been made.

Test instruments and equipment and their accessories shall be rated for the circuits and equipment to which they will be connected and shall be designed for the environment in which they will be used.

31.5 ELECTRICAL PERSONAL PROTECTIVE EQUIPMENT (PPE)

Personnel working in areas where there are potential electrical hazards shall be provided with and shall use electrical protective equipment that is appropriate for the specific parts of the body to be protected and for the work to be performed.

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Protective equipment shall be maintained in a safe, reliable condition and shall be periodically inspected or tested as required by 29 CFR 1910.137.

If the insulating capability of protective equipment is subject to damage during use, the insulating material shall be protected.

Personnel shall wear non-conductive head protection wherever there is a danger of head injury from electric shock or burns due to contact with exposed energized parts.

Personnel shall wear protective equipment for the eyes or face wherever there is danger of injury to the eyes or face from electric arcs, flashes or from flying objects resulting from electrical explosion.

31.6 GENERAL PROTECTIVE EQUIPMENT AND TOOLS

When working near exposed energized conductors or circuit parts, personnel shall use insulated tools or handling equipment if the tools or handling equipment might make contact with such conductors or parts. If the insulating capability of insulated tools or handling equipment is subject to damage, the insulating material shall be protected.

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

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

Protective shields, protective barriers, or insulating materials shall be used to protect personnel from shock, burns or other electrical-related

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injuries while personnel are working near exposed energized parts which might be accidentally contacted or where dangerous electric heating or arcing might occur. When normally enclosed live parts are exposed for maintenance or repair, they shall be guarded to protect unqualified persons from contact with the live parts.

32.0 ASSURED GROUNDING

32.1 GROUND-FAULT CIRCUIT INTERRUPTERS

All 120-volt, single-phase 15- and 20-ampere receptacle outlets on construction sites, which are not a part of the permanent wiring of the building or structure, shall have approved ground-fault circuit interrupters (GFCI).

Receptacles on a 2-wire, single-phase portable or vehicle-mounted generator rated not more than 5kW where the circuit conductors of the generator are insulated from the generator frame and all other grounded surfaces need not be protected with ground-fault circuit interrupters.

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32.2 COMPETENT PERSON/EQUIPMENT TESTERS AND INSPECTORS

At construction sites, manufacturing plants and other facilities, the site Safety Coordinator is designated as the PSL competent person and is responsible for implementation of this program. Competent persons must attend a basic electrical safety training program that addresses proper grounding prior to assuming responsibility for the jobsite program. The actual testing and inspection of electrical equipment may be delegated to the Maintenance Supervisor, licensed electrician or other trained person.

32.3 EQUIPMENT INSPECTION AND TESTING

The following equipment shall be inspected daily, before each day's use:

- Cord sets
- Attachment caps
- Plug and receptacles of cord sets
- Any equipment connected by cord and plug, except cord sets and receptacles which are fixed and not exposed to damage.

The equipment listed above shall be visually inspected for external defects (i.e. deformed or missing pins or insulation damage) and for indications of possible internal damage.

Damaged or defective equipment shall be tagged "Do Not Use" and taken out of service until repaired and tested.

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The following tests shall be performed on all cord sets, receptacles which are not a part of the permanent wiring of the building or structure, and cord- and plug-connected equipment required to be grounded:

- All equipment grounding conductors shall be tested for continuity and shall be electrically continuous
- Each receptacle and attachment cap or plug shall be tested for correct attachment of the equipment grounding conductor.

Tests shall be performed:

- Before first use
- Before equipment is returned to service following any repairs
- Before equipment is used after any incident which can be reasonably suspected to have caused damage
- At intervals, not to exceed three (3) months [cord sets and receptacles which are fixed and not exposed to damage shall be tested at intervals not exceeding six (6) months].

The company shall not make available or permit the use of any equipment which has not met the requirements of visual inspection or testing. All equipment placed into service will be inspected and in good working order before use.

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33.0 **EXCAVATIONS / TRENCHING / SHORING**

In the event company employees are required to participate in excavation, trenching or shoring activities, the standards in this program will apply to protect employees from the potential hazards associated. Some of these hazards may include trench cave-ins, contact with various underground utilities, hazardous atmospheres, water accumulation and the collapse of adjacent structures. OSHA Construction Standard regulations (1926.650-652) set specific standards for worker protection based on depth of excavation and soil characteristics. All personnel performing excavation, trenching or shoring operations shall comply with these regulations.

33.1 DEFINITIONS

- Angle of Repose (or Incline) - Angle from the horizontal surface at which the excavation wall is cut.
- Benching - Method of protecting employees from cave-in by excavating the sides of an excavation to form one or more horizontal levels or steps usually separated by vertical or near-vertical surfaces.
- Cave-In - Separation of a sufficient quantity of soil or rock from the side of an excavation, or the loss of soil from under a trench

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shield or support system and its sudden falling or sliding into the excavation.

- **Competent Person** — Person, manager or supervisor on location capable of identifying existing or potential hazards, or work conditions which are unsanitary with authority to take prompt corrective measures.
- **Disturbed Soil** - Soil that has been previously excavated, moved, or deposited which does not have the stability of undisturbed soil. Most soils in the right-of-way have been disturbed.
- **Excavation** - Man-made cut, cavity, trench, or depression in the earth surface formed by the removal of soil and rock.
- **Protective System** - Method of protecting employees from cave-in, from material that could fall or roll from the face or wall into an excavation, or from collapse of adjacent structures. Protective systems include support systems, sloping and benching, shields, and other devices or methods that provide necessary protection.
- **Sloping** - Digging the sides at an incline away from the deepest part of an excavation to prevent cave-in. The angle required depends on factors such as soil type, environmental conditions (wet or dry soil), and equipment, structures, soil, or other material near the edge of excavation.
- **Stable Rock** - Natural solid mineral matter that can be excavated with vertical sides and remain intact while exposed.
- **Submerged Soil** - Soil which is underwater or is free-seeping.
- **Support System** - Structure, such as underpinning or shoring, which provides support to an adjacent structure, underground installation or excavation walls.
- **Soil Type A:**
 - Cohesive soils with an unconfined, compressive strength of 1.5 ton per square foot (tsf) (144 kPa) or greater

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- Cohesive soils such as clay, silty clay, sandy clay, clay loam, and, in some cases, silty clay loam and sandy clay loam
- Cemented soils such as caliche and hardpan are also considered Type A
- No soil is Type A if:
 - The soil is fissured
 - The soil is subject to vibration from heavy traffic, pile driving or similar effects
 - The soil has been previously disturbed
 - The soil is part of a sloped, layered system where the layer's dip into the excavation on a slope of four horizontal to one vertical (4H:1V) or greater
 - The material is subject to other factors that would require it to be classified as a less stable material
- Soil Type B:
 - Cohesive soil with an unconfined compressive strength greater than 0.5 tsf (48 kPa) but less than 1.5 tsf (144 kPa)
 - Granular cohesion-less soils including angular gravel (similar to crushed rock), silt, silt loam, sandy loam, and, in some cases, silty clay loam and sandy clay loam
 - Previously disturbed soils except those which would otherwise be classed as Type C soil
 - Soil that meets the unconfined compressive strength or cementation requirements for Type A, but is fissured or subject to vibration
 - Dry rock that is not stable
 - Material that is part of a sloped, layered system where the layer's dip into the excavation on a slope less steep than four horizontal to one vertical (4H:1V), but only if the material would otherwise be classified as Type B
- Soil Type C:

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- Cohesive soil with an unconfined compressive strength of 0.5 tsf (48kPa) or less
- Granular soils including gravel, sand and loamy sand
- Submerged soil or soil from which water is freely seeping
- Submerged rock that is not stable
- Material in a sloped, layered system where the layer's dip into the excavation or a slope of four horizontal to one vertical (4H:1V) or steeper

33.2 (EXCAVATIONS / TRENCHING / SHORING) TRAINING

The Competent Person must be trained in accordance with regulatory requirements and all other programs that apply (examples – Hazard Communications, Confined Space, Lock-out / Tag-out etc.).

All other employees and contractors working in and around the excavation must be trained in the recognition of hazards associated with this activity.

All workers on site should be trained and have knowledge of the following:

- Safe work practices related to excavation work;
- Hazards related to excavation work;
- Methods of protection for excavation hazards;
- Use of Personal Protective;
- Procedures and safe practices regarding hazardous atmospheres;
- Emergency and non-entry rescue procedures; and
- Regulations involving excavations

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33.3 PRE-JOB MEETING

Pre-job safety meeting will be held to identify site specific issues, hazards and mitigation measures.

The following shall be discussed:

- Identify all hazards and communicate to workers.
- Identify all underground facilities in the excavation area.
- Identify exposure techniques.
- Identify minimum distances for mechanical excavation equipment.
- Identify PPE requirements and firefighting requirements.
- Identify shoring and barricade requirements.
- Establish escape routes and evacuation procedures.

33.4 UNDERGROUND INSTALLATIONS

Before employees are permitted to begin excavation or trenching, the location of underground installations must be determined. Utilities to consider include sewer, telephone, fuel, electric, water or any other underground installations that may be expected to be encountered during excavation or trenching activities.

Prior to the start of any excavation or trenching activities, utility companies or owners must be contacted to establish the location of any underground utility within customary local response times. When the utility company or owner is unable to respond within 48 hours or cannot establish the exact location of an installation, excavation or trenching activities may proceed. Employees are required to proceed with caution and utilize detection equipment or other acceptable means to locate

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utility installations. Those utilities found should be protected, supported or removed as necessary during activities to safe guard employees.

The excavations will be marked with a unique name or identification number at sufficient intervals to accurately identify the location of the excavation. The Uniform Color Code for Locations of Underground Facilities shall be used:

- Blue for water
- Green for sewer
- Orange for communication/coaxial cable
- Pink for survey
- Purple for reclaimed water
- Red for Electric
- White for proposed excavation area
- Yellow for gas

33.5 EMPLOYEE PROTECTION

All employees in an excavation shall be protected from cave-in by an adequate protective system. Exceptions may be made for excavations entirely in stable rock, or less than 5 feet in depth, where examination of ground conditions by a competent person provides no indication of potential cave-in. Employees shall be protected from material and equipment falling into the excavation by placing and keeping such materials or equipment at least 2 feet from the edge of excavation, or by use of retaining devices sufficient to prevent materials or equipment from falling or rolling into the excavation. Where depth and/or soil characteristics indicate potential for cave-in, employees shall be

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protected by a support system or by properly designed sloping or benching.

Means of egress from excavations (stairway, ladder, ramp, or other devices) shall be located in trench excavations 4 feet or deeper and require no more than 25 feet of lateral travel to get out.

Employees shall not be permitted beneath loads being moved or supported by lifting or digging equipment. Employees shall be required to stand away from any vehicle being loaded or unloaded to avoid spillage or falling material. Hard hats shall be worn.

Air testing shall be conducted in any excavation where oxygen deficiency (atmosphere containing less than 19.5% oxygen) and/or a flammable gas concentration [greater than 20% of Lower Explosive Limit (LEL)] may exist and ventilation shall be provided as necessary. Air testing may also be required when there is an indication that the soil is contaminated. The presence of a service station, storage tank, land fill, gas line, or sanitary sewer near the excavation site may indicate contaminated soil. Employees shall look for signs of contamination (odors and/or discoloration of soil), and, if detected, contact the Safety and Health Office for guidance.

Employees shall not work in excavations with an accumulation of water, or accumulating water unless adequate precautions have been taken (i.e. special shields, water removal, and/or safety harness and life line). If water is controlled or prevented from accumulating by the use of water removal equipment, the equipment and operations shall be monitored by a competent person to ensure proper operations. If excavation work interrupts the natural drainage of surface water, diversion ditches, dikes or other suitable means shall be used to

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prevent surface water from entering and provide adequate drainage. Excavations subject to runoff from heavy rains will require an inspection by a competent person.

Stability of adjacent structures must be determined before excavating. Structures weakened or damaged by the excavation shall be supported by appropriate means to protect against movement or collapse.

A risk assessment shall be performed on planned activity to determine all potential hazards and methods of mitigation. In addition, any Emergency Response Equipment must be identified and obtained prior to the start of the activity.

A competent person shall look for evidence of cave-in, protective system failure, hazardous atmosphere, and/or water during a daily inspection of the excavation, adjacent areas and protective systems. These inspections shall be conducted prior to the start of work, after every rainstorm or other hazard increasing occurrence, before re-entry into an excavation left open overnight and as needed throughout excavation activities. Employees shall be removed immediately from the area until necessary precautions have been taken if the competent person finds evidence of a hazardous situation.

Employees working adjacent to an excavation with potential for falling more than 6 feet shall use fall protection. Walkways shall be provided where employees or equipment are required or permitted to cross over excavations.

When mobile equipment is operated adjacent to an excavation and the operator does not have a clear and direct view of the edge of the excavation, a warning system shall be used such as barricades, hand

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or mechanical signals, or timbers. Grades should always slope away from the excavation.

Employees exposed to public vehicle traffic shall be provided with and shall wear warning vests or other suitable garments marked with or made of reflective or high-visibility material. Signs and barricades must be utilized to ensure the safety of workers, vehicle traffic and pedestrians.

33.6 (EXCAVATIONS / TRENCHING / SHORING) EMERGENCY RESPONSE

The competent person will be fully trained in requirements of Ground Disturbance Activities along with the potential emergency situations that may arise. Prior to the start of the activity the details of Emergency Response to the site must be identified with contact numbers available.

33.7 (EXCAVATIONS / TRENCHING / SHORING) PPE

The minimum requirement at the job site is all personnel shall wear a hard hat, safety glasses with side-shields, Fire Retardant Clothing, and steeled boots. Other PPE requirements must be assessed prior to the start of activity and be made available based on potential hazards present.

33.8 DESIGN OF PROTECTIVE SYSTEMS

Where employees are protected from cave-in by a support, shield or other protective system, the design shall meet or exceed all anticipated loads that could be exerted by cave-in and requirements defined in

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Appendices A and C of 1926.652. Typical protective systems include wooden shoring, aluminum shoring (hydraulic, mechanical or pneumatic) and trench boxes. When one of these systems is used, the depth of excavation shall not extend more than 2 feet below the bottom of the shields. Excavation below the shield can only be done if the shield is designed to resist the forces calculated for the full depth of the trench and there is no indication of possible soil loss behind or below the bottom of the shield.

All stockpiles, other material and equipment will be stored a minimum of two feet from the edge of the excavation. They must not block the safe means of egress. If the use of restraining devices is needed, these restraining devices should be sufficient to prevent materials and equipment from falling or rolling into excavations.

When material or equipment that is used for protective systems is damaged, a competent person shall examine the material or equipment and evaluate its suitability for continued use. The material or equipment must be removed from service if the competent person is unable to assure suitability or has determined the equipment or material to be unsafe.

33.9 DESIGN OF SLOPING/BENCHING

Employees shall not be permitted to work on the faces of sloped or benched excavations at levels above other employees unless employees at the lower levels are adequately protected from hazard of falling, rolling or sliding material or equipment. Shields shall be installed in a manner to restrict lateral or other hazardous movement of the shield. The shield should not be subjected to excessive forces and must be designed to resist calculated trench forces. Employees shall not be

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allowed in shields when they are being installed, removed or moved vertically.

Where sloping or benching of excavation walls is used to protect employees from cave-in, the walls shall not be sloped at an angle greater than 34 degrees measured from the horizontal (ratio of one and one-half horizontal to one vertical), unless the soil can be shown to be type A or B.

Where testing has shown soil conditions to be type A or B, the angle of repose may be increased. The maximum allowable angle for type A soil is 53 degrees (ratio of 3/4 horizontal to one vertical) and for type B is 45 degrees (ratio of one horizontal to one vertical).

33.10 ANNUAL REVIEW

An annual review shall be performed of the procedures involving Ground Disturbance Operations. Procedures will be revised based on the changes identified during the annual review process.

34.0 MANAGEMENT OF CHANGE

The Management of Change (MOC) addresses temporary and / or permanent changes to the organization, personnel, systems, standards, equipment, products, materials, or substances that are not "replacement in kind." All temporary and / or permanent changes will be evaluated and managed to ensure that HSE risks arising from these changes remain at acceptable levels.

The MOC process establishes minimum standards necessary to identify and control potential hazards or impacts associated with change. MOC ensures that the impacts of changes that affect the health and safety of

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personnel or threatens the environment are properly recognized, reviewed, approved, communicated, and documented.

35.0 HSE RECORD RETENTION / ACCESS TO MEDICAL RECORDS

Baker believes that nothing should be placed in an employee's personnel file unless there is a clear business reason for doing so. Medical information is kept separately from the personnel file. Our employee privacy philosophy is further reflected in the following statements:

- Personnel files will include only job-related information pertinent to employment
- Personnel files are open only to authorized company personnel on a business-related, need to know basis unless the company is legally required to release them by court order or subpoena
- Employees must give written permission before there will be external disclosure of their personal information with the exception of the following information:
 - Verification of dates of employment and positions held
 - Personal information which the company is legally required to reveal by court order or subpoena. In the latter case, the employee will be informed before the disclosure if reasonably possible.

Documentation is necessary to demonstrate that Division Managers are fulfilling company and regulatory HSE activities. Each facility is expected to establish an HSE filing system that enables rapid review of HSE documentation and the HSE Representative is responsible for

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creating and maintaining the HSE filing system. The filing system used may be electronic and/or paper-based.

35.1 HSE RECORDS

As a rule, HSE records should be retained for a minimum of five (5) years including, but not limited to:

- Accident Investigations
- Accident Reports
- Air Permits
- Calibration Documentation
- Citations from Regulatory Agencies
- Discharge Sampling Results
- Drug and Alcohol Test Results
- Hazardous Waste Manifests
- Industrial Hygiene Tests and Surveys
- OSHA Logs
- Safety Audits
- Safety Committee Minutes
- Safety Inspections
- Safety Meeting Rosters
- Spill/Accidental Release Reports
- Training Outlines
- Training Rosters

Equipment inspection records and safe work permits associated with hot work, Lockout / Tagout (LOTO) or confined space entry need only be preserved for one (1) year. There may be regulatory requirements that require certain records to be retained for longer periods of time.

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Employees, and in some cases, members of the public, have the right to review certain HSE documents upon request. All requests by employees, contractors, regulatory agencies, or members of the public who want to view HSE documents that are not commonly available to employees should be directed to the facility HSE Representative.

Any document that is considered confidential should be stored in a locked file cabinet. Access to confidential documents shall be restricted to personnel with a need to know. The Division Manager shall determine who has a need to know. Confidential and non-confidential documents and records shall be maintained in separate files.

36.0 ENVIRONMENTAL POLICY

It is Baker's company policy to conduct its operations in compliance with all applicable local, state and federal environmental laws and regulations and to protect the environment in the communities in which we operate. Baker is committed to continuous improvement in environmental performance throughout its operations at Baker facilities, Customer well-sites and public lands in which we travel. Consideration of the company's impact on the environment while conducting business has, and always will be, of prime importance to the company.

The Company recognizes the importance of safeguarding the environment wherever it conducts its business. Successful policy and programs in this area will continue to provide mutual benefit to both the Company and the environment. The Company's Environmental Policy is:

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- To comply with all applicable environmental laws and regulations and develop best management practices where no laws or regulations are present;
- To conduct operations in a manner that is consistent with Baker's and our Customer's requirements necessary to achieve compliance with their policies and standards to protect the environment;
- To provide effective environmental management at all levels of the company; including water/energy conservation at all levels
- To maintain effective environmental standards and programs consistent with available technology which promote enhancement and protection of our environment;
- To communicate employee responsibility for protecting the environment through development and implementation of appropriate training and education programs that provide environmental awareness and appropriate operating practices;
- To communicate environmental performance and metrics to Baker stakeholders (Baker senior management, Baker employees and Customers);
- To minimize the release of pollutants to the ground, habitat, waterways and the air through adherence to sound operational procedures and an effective maintenance program;
- To respond efficiently, quickly and in a safe manner to all environmentally-related spills and incidents that occur resulting from its operations;
- To actively participate with the government and the public in creating responsible laws, regulations and standards to safeguard the environment;
- To reduce the amount of overall green house gas and air emissions and waste generated at Baker facilities by maximizing and promoting

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recycling efforts through reuse of products, materials and chemicals where possible; including efficient use of vehicles and equipment

- To make environmental considerations a priority in planning and growth;
- To operate company facilities, procurement / purchasing, handle materials and products in a manner that protects the environment, employees and the public; and has minimal impact on the environment
- To recognize and respond to community concerns about company operations and the effect on the environment through appropriate public awareness and educational programs;
- To extend knowledge by participating in and conducting research on environmental issues
- To conduct periodic reviews of this policy with the objective of continuously improving the company's environmental performance.

36.1 WASTE

Creation of both non-hazardous and hazardous wastes shall be minimized. A waste is basically any product that is no longer needed or that can no longer be used for its intended purpose. An unused product being stored for use at some later date is not a waste unless it is stored past its shelf life or spilled. Waste does not include materials that are to be reused or recycled, as they are useful and still have value. Waste from industrial activities may be classified as hazardous or non-hazardous. "Hazardous waste" is any waste that is defined as being hazardous in accordance with 40 CFR 261.3, unless it is excluded by 40 CFR 261.4. Waste can either be designated as a "listed" hazardous waste or have features that are "characteristically" hazardous if it _____

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exhibits one or more hazardous substance characteristics, ignitable, corrosive, reactive or toxic.

Prior to disposing of a particular type of waste for the first time, the Environmental Manager shall be consulted to determine if there are any special handling standards or regulatory requirements that apply. The Environmental Manager and facility HSE Representative shall classify wastes and develop a waste minimization and segregation program that employees must strictly adhere to.

36.2 SPILLS

The Company shall take precautions to prevent chemical spills and releases that may occur during operations at the Company facilities, Customer well-sites or on the highways during transportation activities.

Each facility shall have an Emergency Response Plan (ERP) in order to immediately and effectively respond to an emergency that may arise and to minimize injuries, equipment damage, and/or environmental damage as a result of the spill/release.

Company requirements are that all Environmental Incidents that impact the air, land or water or have an imminent likelihood of impacting the air, land or water are reportable. This includes minor spills and leaks of hazardous substances and all spill/release reporting requirements as specified by regulators and by customers. Note that for some customers, any chemical or liquid, including fresh water contacting the ground is considered a reportable spill.

Employees shall report all spills/releases to their immediate Supervisors and to the HSE Manager. The HSE Manager shall notify

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the COO and the Environmental Manager. The Environmental Manager or HSE Manager shall initiate control, containment and cleanup activities as soon as possible. Spills that are too large to contain by well-site or facility personnel will require contacting a third-party spill response contractor to contain and remediate the spill.

The Supervisor and the HSE Department shall maintain a spill response log that includes a description of activities, contacts, dates, time, and names of companies/personnel involved.

The HSE Department is responsible for any regulatory notifications that are required. Electronic copies of pertinent environmental records and documentation will be maintained on the Company servers.

36.3 ENVIRONMENTAL TRAINING

Baker employees (field, shop, warehouse and lab) shall be provided with basic environmental training as part of the New Employee Orientation program and continuing in-house or third-party education programs. Environmental aspects of the course shall include:

- Baker HSE Policy;
- Accountabilities and Responsibilities;
- Chemical Safety (Chemical labeling requirements, material safety data sheets, physical and health hazards of chemicals, procedures for the safe use, storage and handling of hazardous chemicals and emergency procedures);
- Spill/release reporting;
- Waste management and disposal;
- Emergency Response; and

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- Hazmat or equivalent training for employees who ship, receive or transport dangerous goods.

As applicable to their job functions, operations management, supervisory and bulk plant employees shall receive spill response training.

As applicable to their job functions, operations management, supervisory and HSE employees shall receive additional environmental training in:

- Regional regulatory and customer environmental and spill/release reporting requirements;
- Emergency response planning; and
- Knowledge of the overall Baker HSE program including spill/release prevention, waste management and minimization, waste disposal requirements, environmental standards for facilities and worksites including chemical and waste storage, environmental record keeping and environmental inspection/audit requirements.

37.0 NEW EMPLOYEE TRAINING

37.1 ONBOARDING HSE TRAINING

Each new operation employee shall successfully complete at a minimum the online New Hire Training Program for their job type and other Business Unit specific required training before being allowed to work on customer's locations (see current Baker Training Program Syllabus, and Training and Competency Standard for detailed information and course contents). Employees shall review the

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Company HSE Handbook, Personnel Policies and Procedures Manual, and Alcohol, Drug, and Contraband Policy annually.

37.2 JOB COMPETENCY ON-THE JOB TRAINING

Division Managers and Contractors are responsible to ensure that each their employees are trained by qualified personnel and is properly trained / instructed in:

- The hazards present in the workplace
- Recognition and avoidance of unsafe conditions and the regulations applicable to the work environment to control or eliminate any hazards or other exposure to illness or injury
- The standards, processes and Personal Protective Equipment (PPE) developed to prevent these hazards from causing injuries, property damage and/or environmental incidents
- The skills necessary to conduct their assigned jobs safely and efficiently while providing product quality and economy
- Any regulatory, customer required, and Business Unit (BU) required compliance training.
- Division Managers are responsible to ensure that each employee is properly trained before starting work, when:
 - The employee is first hired
 - The employee is appointed to a new job assignment
 - The employee is exposed to new substances, processes, standards, equipment, etc. that represent a new hazard to the employee.

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37.3 OUTSIDE TRAINING ORGANIZATIONS

Training from an outside organization is acceptable, if documentation is on file verifying the quality and experience of the outside training organization. Approval of the outside organization and the training program by Management and HSE is required before the students are considered to be properly trained or qualified. When using outside training organizations, Facility must still have all paperwork and documentation sent to the HSE Department.

37.4 JOB SKILLS TRAINING

Each Employee and Contractor is expected to maintain their job skills and to stay current on the equipment and services provided. It is the Employee and Contractor's responsibility to work with their Supervisor to ensure that they stay current by attending these programs on a timely basis.

37.5 TRAINING RECORDS

Each subject requires documentation of attendance and comprehension. Each student must complete the required course curriculum and successfully pass an instructor assessment prior to earning credit for that course. Records of employee training shall be maintained. This documentation shall be maintained for five (5) years after the employee terminates employment. The Division Manager shall periodically review training records to ensure accuracy and compliance.

38.0 SHORT SERVICE EMPLOYEE (SSE)

This section applies to all company Facilities and worksites.

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38.1 DEFINITIONS

- Short Service Employee (SSE) - Company and/or contractor employee with less than (90) days in the same type of job and/or employment with the employer.
- SSE Mentor - Each SSE shall be assigned a Mentor. This Mentor shall be an employee with at least one (1) year experience working on company work locations.

38.2 CUSTOMER NOTIFICATION

The Division Manager and the HSE Representative will ensure that the SSE is marked with a SSE sticker on their hard hat to notify customers and all others on locations that they are an SSE.

The Division Manager shall ensure that the Short Service Employee Form is completed and kept in their employee folder.

38.3 SSE ORIENTATION

The Mentor shall give each SSE an orientation briefing and a tour of the facility. This orientation and tour, including all work and storage areas in the facilities, shall be given prior to allowing the employee to begin assigned work.

As a minimum, the Mentor shall brief the employee on Company standards, rules and policies as outlined on the HSE Orientation Check List and the HSE Handbook. The HSE Orientation Check List shall be

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dated and signed by both the employee and the Mentor.

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Topics that must be discussed include, but not limited to, proper clothing, safety equipment, proper lifting techniques, correct tools, proper hand signals for crane operations, well-site safety, and transportation safety.

38.4 TRAINING

The Division Manager shall ensure that each SSE is properly trained in:

- The hazards present in the workplace
- The standards, processes and PPE developed to prevent these hazards from causing injuries, property damage and/or environmental incidents
- The skills necessary to conduct assigned jobs safely and efficiently while providing product quality and economy.

The Division Manager shall ensure that each SSE is properly trained of this manual before starting work when:

- The employee is first hired
- The employee is appointed to a new job assignment
- The employee is exposed to new substances, processes, standards, equipment, etc. that represent a new hazard to the employee.

38.5 SSE IDENTIFICATION

All SSE are required to wear a SSE green hard hat OR optional SSE sticker on hard hat while on worksites and Baker facilities when not in the living quarters, office, break room, enclosed vehicle, or restroom.

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38.6 SSE SUPERVISION/MENTORING

The company Supervisor and the SSE Mentor shall provide close supervision and not allow the SSE to perform any task for which the SSE has not been properly trained. The Supervisor and the SSE Mentor shall ensure that the SSE understands the task to be performed and the associated hazards.

38.7 MENTORING

Mentoring is a process of transferring skills and knowledge from one person to another in a work environment. Mentoring is recognized as a valuable component of the learning and training process.

Mentors shall be volunteers, but the person chosen to perform the function should strongly believe in the importance of working safely at all times. The Mentor shall also be a people person in that he/she wants his/her co-workers to work safely too and is willing to personally guide and protect the SSE in his/her care.

The Mentor shall not be a SSE, but should have at least one (1) year of employment with the Company and should be well versed in HSE standards and policies. The Mentor shall be of the same craft as the SSE and work alongside his/her charge.

The SSE should be mentored for at least three (3) months, or longer, until such time that he/she is deemed to be working safely to the

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expected standards. New hires, regardless of background or experience, shall be considered a SSE for a period of (90) days.

A Mentor shall:

- Have the desire, a patient disposition and be willing to devote the necessary time to succeed as a mentor.
- Possess knowledge and skills in a particular area that are required by other members of the organization.
- Be willing and able to effectively listen to the SSE to determine if the SSE is learning and retaining the knowledge being shared.
- Be willing to watch a SSE perform a job without interfering as long as the SSE is not in a position to hurt him/herself, others or damage equipment or the environment.
- Provide a positive safety attitude, avoid criticism and strive to build confidence and self-esteem in the SSE.
- Be able to coach, educate and train the SSE in the proper way to apply HSE policies.
- Keep abreast of new equipment and changes in methods of operating present equipment in her/his field of expertise.
- Refrain from taking shortcuts or perform any "at risk" behavior, as the SSE will also learn these "at risk" behaviors.
- Be able to teach the SSE the correct steps used in the behavioral process and furnish positive feedback/reinforcement.
- Teach the SSE his/her role as an observer in the behavior process.
- Exhibit positive expression and ideas, and shall refrain from negative ideas about his/her peers, Supervisors and subordinates. Negative ideas impede the learning process and

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lead the SSE to develop negative feelings where none would exist otherwise.

- Demonstrate a positive work ethic at all times.
- Tell the SSE when he/she is not performing up to par without criticizing. With the SSE's input, the mentor shall discuss what is needed, what the goal is and the proper way to accomplish a task.
- Improve his/her own skills in order to enhance his/her own ability to coach, educate and train others.

38.8 RELEASE FROM SSE STATUS

To be removed from SSE status, an employee must exhibit safe behavior for (90) days [i.e. incident-free performance, proactive participation in the HSE programs such as incident reporting including near misses, Behavioral Based Safety (BBS) observations, JSA development, safety meetings, etc.] and have a general awareness and working knowledge of the HSE Policy and Standards. The Mentor and the employee's Division Manager must complete, sign and date a letter of the completion of the (90) day period stating that the SSE has successfully completed his/her (90) day training period. This letter will be maintained in the employee's personnel file for one (1) year.

The Mentor may recommend a reduction of the (90) day requirement based on the employee's performance and relevant industry experience. This reduction and the reasons for it must be recorded in a letter and must be approved by the Division Manager. This letter will be maintained in the employee's personnel file for (1) year.

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38.9 DOCUMENTATION

The location Supervisor will maintain a file of all SSE assigned to their worksite. The location Supervisor will maintain a copy of all SSE Mentor Certifications.

39.0 PERSONAL APPEARANCE

Good grooming and personal hygiene are expected of all employees. To ensure the professional image of the Company, management asks that all employees adhere to the following guidelines:

39.1 ADMINISTRATIVE PERSONNEL

All administrative employees are expected to report for work wearing proper business attire. For day-to-day activities, business casual attire is acceptable for both male and female employees. Employees found to be in inappropriate attire will be disciplined accordingly.

39.2 FIELD AND SERVICE PERSONNEL

Uniforms:

- An approved company uniform must be worn while on company business, to include transit activity to and from the jobsite
- No nicknames will be allowed on uniforms, unless pre-approved by the division head
- Shorts, tee shirts, flip-flops or sandals are not considered acceptable attire, to include transit to and from the jobsite
- Steel toe footwear must be worn while on company business in designated locations or at all work sites.

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- An approved company uniform is to be worn while on job location, at all times. Ripped or tattered clothing will not be allowed. All sleeves and pants must be hemmed.

Hair

- Beards will be kept in compliance with safety regulations, some field employees may be required to be clean-shaven.
- Hairstyles prohibiting the proper fit of hard hats and other safety gear are prohibited.

Jewelry

- No visible body piercing is allowed while wearing a company uniform
- Rings or chains will not be worn while on the jobsite, to include but not limited to, deliveries, in shop areas, or well-sites.
- Exercise caution while wearing a watch on the job. The company recommends using an elastic or flex type watchband.

Consult the Supervisor or department head if there are any questions as to what constitutes appropriate attire for specific job duties and/or location.

40.0 EMERGENCY RESPONSE PLANS

The following flow chart outlines the standard to be followed to develop each Emergency Response Plan deemed to be appropriate for each Baker facility (each well-site operation will have a documented Emergency Response Plan). The Division Manager or HSE shall review these standards every twelve (12) months. When appropriate to ensure

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the safety of the employees, these standards shall be revised by the Manager or HSE as needed.

All Emergency Response Plans must be in writing, kept in the workplace and available to employees for review. Employees can contact their respective HSE Representative to obtain more information about the Emergency Response Plan or an explanation of their duties under the plan.

40.1 EMERGENCY SITUATIONS

Each Division Manager and HSE must determine what possible emergencies may arise and the appropriate response required ensuring the safety and well-being of all employees, visitors and passengers. Possible emergency situations may include, but are not limited to:

- Explosion
- Personnel injury
- Severe weather
- Fire
- Hurricanes
- Tornadoes
- Floods
- Chemical spills
- Oil spills
- Loss of well-control
- Gas releases

Once possible emergency situations have been identified, standards for reporting those emergencies must be developed.

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Some emergencies will require evacuation of the facility or well-site, while others require all employees to gather at a designated location within the facility or the muster location at the well-site. A single Emergency Response Plan may be used to cover multiple emergencies provided an appropriate warning system is in place to notify each employee of the required action. Evacuation standards detailing types of evacuations and exit routes must also be developed to include standards for employees who remain to operate critical operations, standards to account for employees after an evacuation and standards for employees performing rescue or medical duties.

Each Division Manager or HSE must designate personnel in charge of assisting in the safe and orderly evacuation of other employees and ensure those designees are trained.

NOTE: During an emergency and possible evacuation, there may only be one time to get an emergency call out to the person on the list. Always ensure a backup phone number or radio location.

40.2 WARNING / NOTIFICATION SYSTEM

A warning or alarm system appropriate to the facility or vessel must be devised with distinctive signals for each purpose and must comply with 1910.165 to ensure proper and immediate notification of all occupants. Audible warning systems must be accompanied by a visual system to ensure notice for those employees who are hearing impaired or are wearing hearing protection.

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40.3 EVACUATION ROUTES

All evacuation routes must remain clear at all times to permit rapid egress from the facility or through the vessel. Temporary obstructions shall be cleared as soon as possible. All exits should be clearly marked, lighted and unobstructed at all times.

40.4 ASSEMBLY AND MUSTER AREAS

All assembly areas should be easily identifiable and conveniently located. On larger facilities and vessels, several assembly points may be necessary. Whenever possible, outside assembly points (onshore) should be near a telephone to permit emergency personnel to be notified after the facility has been evacuated.

40.5 FACILITY OR WELL-SITE SHUTDOWN STANDARDS

Facility employees and crew members will be assigned to shut down all sources of energy into the facility or vessel in the event of an evacuation. The sources of energy and their safest shut off points will be identified prior to an emergency. Their locations and safest shut off standards shall be recorded as part of this plan. Employees that are assigned this duty will work in teams of at least two (2) people to ensure employee safety.

At no time, will an employee perform any activity/work that may be a danger to themselves or others. If the energy source cannot be shut down safely, the shutdown is not to be attempted.

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40.6 EMERGENCY EQUIPMENT MAINTENANCE

As part of the periodic hazard Inspection, all emergency equipment shall be inspected. Any defective equipment will be removed from service and repaired or replaced. The Division Manager or designee shall be responsible for affecting all repairs in a timely manner.

40.7 EMERGENCY TELEPHONE NUMBERS

All appropriate emergency telephone numbers shall be listed in anticipation of any and all emergency situations. Emergency contact information shall be made available to all personnel in truck binders, at facilities, and on customer locations.

40.8 EMERGENCY PREPAREDNESS DRILLS

A monthly drill of each Emergency Response Plan shall be conducted and documented.

40.9 EMERGENCY RESPONSE PLAN REVIEW

Division Managers and HSE are responsible for ensuring the Emergency Response Plan is reviewed by all employees upon initial assignment, when employee's responsibilities change under the plan and when the plan is changed.

41.0 FIRST-AID MEDICAL TREATMENT

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The company will ensure the ready availability of medical personnel for advice and consultation on matters concerning employee health. When

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an employee is injured, these medical personnel will provide the proper and prompt medical attention needed in an emergency situation.

In the absence of an infirmary, clinic or hospital in near proximity to the workplace that is used for the treatment of an injured employee, an employee(s) shall be adequately trained to render First Aid.

First Aid supplies shall be readily available. All employees shall be made aware of the location of the First Aid supplies. Where the eyes or body of any person may be exposed to injurious hazardous materials, suitable facilities for quick drenching or flushing of the eyes and body shall be provided within the work area for immediate emergency use.

Each company facility shall ensure that emergency numbers of the infirmary, clinic, hospital, physician, and ambulance are provided to employees.

41.1 FIRST AID KIT

First Aid Kits shall consist of appropriate items stored in a weatherproof case with individual sealed packages for each item. First Aid Kits shall contain at least the items listed below:

- 1" x 3" adhesive plastic bandages
- 32 sq. in. absorbent gauze compress
- Triangular sling/bandage
- 3" x 3" gauze dressing pads
- Antiseptic cleansing wipes
- 1/2" x 2.5 yd. adhesive tape
- Exam quality gloves
- Burn relief packs

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- First Aid Guide

First Aid Kits in each Company facility shall be inspected and re-stocked each month.

First Aid Kits used on Company worksites or locations shall be inspected monthly to ensure they are adequately stocked. It is required that the inspection be documented.

When required on a project, First Aid Kits shall be maintained by supervisory level personnel and kept in an appropriate and visible area that is accessible to all employees on a jobsite. In addition to the standard supplies, these First Aid Kits shall contain all necessary items related to the type of activity being performed. Before being sent out on any project and/or weekly, supervisory level personnel will check and re-stock these First Aid Kits.

41.2 FIRST AID TRAINING

Employees designated as managers by HSE will receive Medic First Aid or equivalent First Aid/CPR training upon initial hire and will be re-trained every two (2) years. Employees successfully completing First Aid/CPR training will receive a form of written certification, i.e. certificate or wallet card that contains the employee's name, type of training, training date, and instructor's signature. All training records are given to the trained employees and maintained on file.

41.3 EMERGENCY FIRST AID STANDARDS

The following is a general guideline for providing emergency First Aid:

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- Initiate treatment standards for injured
- Avoid excitement or panic
- Assure scene safety
- If immediate action is necessary to save a life (artificial respiration, control of bleeding, etc.) give the proper treatment without delay
- Make a careful examination of the patient
- If in doubt, never move a badly injured person unless it is necessary to get him/her to fresh air, or to protect him/her from danger
- Call for emergency transportation if needed
- All injuries shall be reported immediately to the Supervisor. Emergency phone numbers should be ascertained prior to performing any work.
- If eyes are injured or contaminated, provide quick response.

Employees shall never attempt to exceed their level of training.

41.4 TRANSPORTATION FOR MEDICAL INCIDENTS

A company designee shall accompany any injured employee(s) to the appropriate treatment facility. They shall make all reasonable efforts to assist the injured party.

Emergency medical transportation will be provided if needed. As a guide to assist the Pre-Qualified Designee in deciding when to call an emergency ambulance service or medical helicopter the following examples include, but are not limited to the types of injuries or illnesses that may require emergency ambulance service or medical helicopter:

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- Respiratory or chest pains indicating a possible heart attack
- Injuries resulting in severe bleeding, deep cuts or amputations
- Compound fractures
- Head injuries and/or altered states of consciousness
- Severe and acute back injuries
- Suspected internal injuries and bleeding
- Gas poisoning
- Respiratory problems requiring artificial respiration, such as, but not limited to drowning or gas poisoning
- Severe burns
- Severe abdominal pain

41.5 INJURY CASE MANAGEMENT

Baker HSE representatives are to be contacted in the event of any Injury Case that is work related. They will work closely with employees to help cases from becoming OSHA recordable and if an employee does seek treatment at a nearby medical facility, they will work with the medical staff to ensure that employees receive the proper care and attention they deserve. Even if there is an incident where an employee is immediately transported to a nearby medical facility for treatment, Baker HSE still must be contacted as they serve as Case Managers for Baker. If employees receive treatment, they must stay in constant contact with the assigned case health professional. If their condition changes, Baker HSE representatives must be contacted immediately as the assigned case health professional will evaluate the need for additional treatment and setup required treatment.

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42.0 OPERATIONAL CONTROL FOR OHSE

The following are the minimum safety controls adopted in Baker Group' facilities:

- Trained First Aid Personnel must be at each facility.
- First Aid Treatment should only be administered by qualified first aid personnel, except in extreme circumstances.
- All injuries, regardless of how minor, must be reported promptly.
- Any incident requiring First Aid or Medical Treatment shall be recorded.
- Fire extinguishers must be placed in strategic locations and must not be obstructed and personnel trained in their use. Identifications, inspection tags, types, sizes and locations must conform to local safety regulations.
- Each building will have a defined procedure to follow for evacuation in case of emergency such as fire.
- Adequate safety notice boards shall be provided to contain safety posters, safety rules, and other safety articles and information.
- All field and shop employees hired shall be given a general pre-placement medical physical examination by an appointed company physician who will include, but not be limited to, hearing tests, functional capacity evaluation and an illegal substance urine test prior to beginning their employment with Baker Group.

43.0 TRANSITIONAL DUTY PROGRAM (Baker Employees Only)

Baker provides a Transitional Duty Program to all eligible employees who experience an occupational injury or illness while on the job which

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causes a short-term disability. This is a temporary and transitional work situation. The goal of this program is to assist an injured employee to recover and return to his/her position as quickly as possible. Any employees currently on the disability roles shall be assessed for eligibility for participation in the Transitional Duty Program.

Eligible employees will be allowed to utilize a period of transitional duty work in the event that the employee cannot physically return to his/her previous job. The Transitional Duty Program shall allow the employee to work at a modified position, subject to a periodic review of the employee's compliance with the eligibility requirements.

The Transitional Duty Program shall consist of up to two (2) weeks of transitional duty. Extension shall be determined if necessary and transitional work is available using the Transitional Duty Program Extension Request. Baker shall assist in coordinating medical treatment and involvement in the Transitional Duty Program. The transitional duty progress shall be evaluated regularly. In order to continue to participate, the employee must comply with all other conditions of employment (i.e. attendance, drug testing, quality of work, etc.).

At the conclusion of the Transitional Duty Program period, Baker shall evaluate the employee's ability to return to their previous job using the Transitional Duty Medical Release. If it is determined that the employee is physically capable of returning to their previous position, the employee may be eligible for reinstatement into his/her previous position.

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43.1 ELIGIBILITY REQUIREMENTS

In order to be eligible for this Transitional Duty Program, the following criteria must be met:

- The incident was reported according to policy.
- The injured worker is temporarily unable to perform his/her previous job.
- The transitional duty work is available.
- The employee participates in treatment and follows physicians' orders and recommendations.
- The employee's treating physician has not yet released employee to return to his/her previous position.
- The employee demonstrates cooperation and a desire to return to his/her previous position.

43.2 EMPLOYEE TASKS

Employees who are eligible for the Transitional Duty Program shall perform the following tasks, but not limited to, if qualified and authorized to so:

- Answer phones
- Empty trash
- Sweep/mop offices
- Change light bulbs
- Sweep parking lot
- Clean shop
- Clean/paint equipment
- Assist in yard/shop

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- Hot-shot driver/deliverer
- Drive forklift
- Operate crane
- Signal for crane operator
- Computer data entry
- Update Safety Data Sheets (SDS)
- Inspect fire extinguisher(s)
- Order supplies
- Inventory stock and parts
- Inspect equipment
- Inspect slings
- Equipment maintenance
- Change oil
- Flush-out radiators
- Change hydraulic fluid
- Refresher and/or optional training:
- Attend training
- Assist Training Managers
- Mentor new hires

44.0 INCIDENT REPORTING AND INVESTIGATION

When an incident occurs, prevention has failed and a lesson has been paid for in pain or damage. It is most important to learn as much as possible. The timely and thorough investigation and reporting of an incident is therefore fundamental to the prevention of similar incidents in the future. The investigation team must identify the underlying cause and find preventative strategy.

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All incidents must be reported by all Employees and Contractors immediately to their direct supervisor regardless of severity. The Employee and their Supervisor, or Contractor must follow the Baker incident reporting standard outlined in the Baker incident reporting standard.

What to investigate: Any unplanned event that has caused injury/damage or has the potential to do the same must be reported. The difference between an injury and a non-injury incident is often luck. If a piece of equipment crashes to the floor, something is amiss whether there is injury or not. When the cause is found, and addressed, the result will be prevention. The following incidents must be investigated with formal root cause analysis:

- OSHA Recordable Incident (Recordable, Restricted Duty, Lost Time, Fatality)
- High Potential Near Miss
- Fire or Explosion
- Preventable Motor Vehicle Accidents
- Oil/Chemical Spill
- Property Loss in Excess of \$10K

Purpose: The primary purpose of an investigation is to gather information about the unplanned event and develop a preventative solution. It is fact finding, not fault finding.

Questions: A thorough investigation will always find out Who, What, Where, When, How and Why. Specific information is necessary. Information is gathered as soon as possible, in order to have accurate and complete data.

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Follow-up: An investigation without follow-up is meaningless. Steps must be taken to ensure that the same unplanned event does not occur again.

Note: The cause(s) of an incident is typically rooted in a Substandard Act or Substandard Condition. A Substandard Act is usually due to lack of training or a lack of attention. A Substandard Condition is the result of an unknown hazard or a known hazard that is ignored.

This requirement was meant to complement the already existing standard for Initial Incident Notification following the Baker incident reporting requirements. For all OSHA, Lost-time Incidents and High Potential Near Misses, the HSE representative will schedule a time with the COO of Baker to review the incident investigation.

Quality of the report should be a higher priority than the speed in which it is completed, but even the most complex incident should not take more than two weeks. Once the report is final, a copy of the report is forwarded to the HSE Manager of the business unit, corporate Workers Compensation Coordinator and the Director of HSE. The preferred method of documentation is electronic so it can be easily distributed and allow the corporate office to keep easily accessed electronic files.

This requirement is not only designed to align Baker with our customer expectations, but also to meet our own high internal aspirations. Baker recognizes those who do a good job of investigating an incident and share the key learning's across the corporation to make sure the incident is not repeated.

If there is doubt where the injury occurred or what may have caused the injury, input from the doctor shall be solicited in an

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effort to better understand the nature of the injury, including whether it is work-related. This information must be included in the Incident Investigation Report and help justify the ultimate classification of the incident.

44.1 NON-WORK RELATED

In the event a Baker physician or employee's physician (assuming he/she chooses to see one) does not release the employee to full duty (e.g. restricted duty, lost time, etc.), determination and justification of whether the incident is work-related must be part of the incident investigation, including RCA, as defined in Baker incident investigation standards.

If it is determined the injury is not work-related, the employee is subject to the same protocol as any employee who is ill and cannot come to work. Short-term disability shall be considered for those who have an extended absence and are entitled to the benefit.

44.2 WORK-RELATED

If it is determined, after a complete incident investigation and RCA, the injury is work-related and the employee cannot return to his/her normal job duties, the employee must be placed in the worker's compensation system **WITHIN TWO (2) WEEKS OF THE INJURY**. This means the employee shall not be on the payroll in any type of restricted duty or no work assignment beyond this two (2) week period.

44.3 EXCEPTIONS

In certain cases, exceptions to the two (2) week rule shall be considered where an employee has not reached "maximum medical

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improvement" and the business unit wants to keep the employee's compensation whole until a determination can be made whether a return to full duty is possible, or if there are insurance issues which may dictate an exception.

Exceptions to the two (2) week period shall only be granted once a formal written request along with an explanation justifying the request has been submitted to the HSE Manager and Division Manager.

The request must include a full, complete and professional Incident Investigation Report, including RCA. It shall be noted that even when exceptions are granted, it shall not extend beyond six (6) weeks and there shall be an expectation the case shall be monitored closely by the HSE Manager of the business unit and periodic updates provided.

Good case management starts with timely reporting. Every employee in Baker must understand the importance of reporting all injuries to their Division Manager, regardless of whether it occurred at work or off the job. Management must know if an employee is injured as it may place the employee or other co-workers at a greater risk once they return to work.

Division Managers must understand the importance of this reporting requirement and have an obligation to monitor their employees and report any suspected injury even if the employee does not volunteer the information.

Management has full responsibility for enforcing this obligation; there are no excuses. Disciplinary action is appropriate for those who fail to comply.

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44.4 PHYSICIAN INVOLVEMENT

Assuming the injured employee or the employee's Division Manager reports the incident; the employee must be examined by a company physician and/or, in the alternative, the employee's physician (if requested by the employee) and cleared to return to their normal job duties. This shall happen not only when the injury dictates doctor's care, but also in situations where the extent of the injury is not obvious (e.g. back, knee, etc.).

Even if it is not clear whether the injury or impairment occurred at work and/or an injury report was not submitted, the employee shall be asked (at Baker's expense) to undergo a physician's examination or other suitable alternative, including a functional capability exam, to make sure the employee is fully capable of returning to their normal job duties.

Depending on the circumstances, if the employee refuses to participate, disciplinary action, up to and including discharge, may be considered. The only exception to a physician's examination shall be for minor First Aid Incidents.

It is required to be accompanied by a HSE professional or by an employee/representative deemed suitable by the management of the business unit/subsidiary to visit a physician or medical treatment facility. Baker HSE Incident Investigation Policy requires an Incident Investigation Report, including a Formal Root Cause Analysis (RCA) Report, for any incident involving employee recordable injuries or estimated property damage greater than \$1,500.

45.0 OFFICE SAFETY

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The following are general office safety rules:

- Adjust the lighting and computer video screens to protect eyes from strain. While operating a device with a video display, it is recommended to take a short break every twenty (20) minutes and perform some simple exercises to prevent strain:
- Focus on objects that are at least 20 feet away
- Lightly cup eyes with palms and relax for sixty (60) seconds
- Look away from the screen and roll eyes up and down, around and side-to-side
- Adjust body position so as to prevent strains to the back, wrists and other parts of the body. Avoid bending, twisting and leaning backward while seated. If a device is needed to improve ergonomic working conditions, talk to the Supervisor or the HSE Department.
- Stay alert to the work and the people around the office area.

46.0 LONE WORKER POLICY

Lone working places employees at a higher level of risk due to some of the situations that can be encountered when working alone. (i.e. personal injury, violence / assault, etc).

People are considered to be lone workers if they carry out work by themselves without close supervision or interaction from other members of staff. This can include people who work in fixed establishments where they work in an area that is separated from others or people who work outside of normal working hours when other people are not around. It can also include people who work away from their fixed location (i.e. transient workers)

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In all cases, where the potential for lone working has been identified, the Division Manager will ensure that they put in place a safe system of work to control the risks to any member of staff.

46.1 HIGH RISK SITUATIONS AND PROHIBITIONS

For normal operations, the risk of lone working may be controlled in accordance with the risk assessment that will be undertaken by the Division Manager prior to the commencement of the works.

In the following circumstances the deployment of lone workers will be prohibited as the operations are deemed to place the individual carrying out the work at too great a risk to be acceptable. These operations are described as follows:

- Any work involving live electrical equipment - (i.e. installation, fault finding, testing, etc).
- Any work involving maintenance or repair of Baker equipment - (i.e. fluid end maintenance or replacement, work on pump engine, vehicle maintenance or repair at the shop or well-site, etc.)
- Any work that is carried out at elevated height - (i.e. work using manlifts, steps or ladders)
- Any work in a facility designated as high risk due to previous experience or requirement from the customer.

46.2 PLANNING THE WORKS AND RISK ASSESSMENT

All lone working situations will be identified and addressed by the Division Manager to ensure that a safe system of work is drawn up and implemented. All lone working situations must be considered

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against

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this guidance and a suitable risk assessment that is specific to the operations and locations concerned must be produced.

All risk assessment control measures must be formally identified and recorded and any findings must be communicated to Employees and Contractors that will be carrying out the work. The Risk Assessment must be completed by HSE or Management but approved by the Division Manager in all cases.

46.3 EMERGENCY SITUATIONS

An emergency contact must be clearly identified prior to any work beginning. The lone worker is responsible for reporting all incidents immediately to the designated emergency contact. The designated emergency contact is responsible for notifying the Division Manager and HSE for any incident immediately. All lone workers must receive training to the emergency response plan prior to any work beginning and the plan must be in the lone worker's possession at all times or posted in the area work will take place.