



Mining Contractor Safety Reference Handbook



Luminant

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PREFACE

The safety and health of our people – Luminant employees and business partners - are fundamental to our operations. We will never successfully accomplish our operational goals if we fail to provide a safe and healthy workplace.

This handbook of safe work practices is for your guidance in preventing accidents. The practices contained herein are derived from mining industry professionals with many years of experience, which includes miners, foremen, superintendents and engineers, along with safety professionals from Luminant, the mining industry and MSHA.

Keep in mind - this is a general handbook and will not cover every situation.

If you have any questions regarding these procedures, the Luminant mining project engineer, lead person or safety department at the mine can provide any additional clarification.

All subcontractors shall be so instructed in the contents of this handbook.

INTRODUCTION

Welcome to Luminant. The management and employees of Luminant are dedicated to preventing all accidents and injuries in our mines, and we expect all contractors, contractor personnel and visitors to also prevent accidents and injuries.

Luminant has established safety records that are exemplary. We work very diligently at performing our jobs safely and efficiently.

The terms and conditions of your contract state that jobs will be performed in a safe manner at all times. If this agreement is not fulfilled, the contract may be subject to termination and you may be asked to leave the job site.

The safe working practices outlined in this handbook are intended to supplement, but not replace, the provisions of the Mine Safety and Health Act of 1977 and any regulations issued there under. In addition, the publication and issuance of this handbook by Luminant is not intended to relieve a contractor or its personnel from responsibility for compliance with the safe working practices detailed herein. Similarly, the enforcement of these practices and provisions of and/or regulations issued pursuant to the Mine Safety and Health Act of 1977 will continue to be the obligation of every contractor performing work on Luminant property.

LUMINANT MINING

SAFETY POLICY

The safety and health of every worker and the public is of prime importance to Luminant. Luminant Mining is committed to the safe design, construction and operation of our system with emphasis on the prevention of accidents and injuries.

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GENERAL SAFETY

If, while working on Luminant property, you identify an imminent danger situation or a situation where immediate action is required, report concerns to mine supervision immediately. Every person has the right to stop work when hazards exist.

- A. All personnel shall be 18 years of age or older.
- B. The personnel shall be responsible to ensure their own and fellow workers' safety.
- C. The personnel shall know the safety rules involved in each job.
- D. Before starting a job, all personnel shall take the time to analyze the job, determine if hazard(s) exist, and not do anything that might endanger other workers.
- E. Contractor personnel shall communicate as appropriate with fellow personnel and Luminant employees during hazardous jobs and ask questions if there are any doubts about any phase of the job.
- F. Haste or inattention are inconsistent with job performance and safety, and will not be permitted.
- G. Personnel shall report to the job site prepared and ready to work and must be mentally and physically able to do their assigned task(s).
- H. Contractor shall ensure that displays of aggression or threatening conduct by contractor personnel are not tolerated.
- I. Indulging in impractical jokes, horseplay, scuffling and wrestling at any time while on duty, on Luminant property or in Luminant vehicles is forbidden.
- J. Luminant prohibits the use, possession and/or being under the influence of intoxicants, drugs or narcotics while on Luminant property. All contractor personnel must know and abide by the specific provisions of these rules. The contractor must ensure that any personnel taking prescription medications which could impair an individual's ability to safely perform the

work shall report these conditions to the contractor, who will take appropriate measures to ensure the work is performed safely.

- K. No personal firearms are allowed on Luminant mine property.
- L. Drinking water containers shall be marked "Drinking Water Only." Large or bulk containers intended for multi-person use shall be kept sealed and dated, and shall be accompanied with individual or disposable water cups. A contractor-provided supply of bottled water is highly recommended.
- M. Contractors must provide their own approved first aid station and equipment. In some situations, contractors may be required to supply MSHA first aid items for their work areas in accordance with (30 CFR 77.1713). See the Luminant project lead or safety specialist for more information, if required.
- N. Contractor personnel shall watch the appropriate safety video before performing work on Luminant property. Site-specific training shall be performed annually. All site-specific training must be done in accordance with the Luminant Mining MSHA-approved training plan unique to each mine site. Watching the video alone does not constitute the MSHA-required site-specific training. Luminant Mining is responsible for administering training that is unique to the specific hazards associated with each site.
- O. Contractor shall provide proof of all MSHA required part 48 and part 77 training for all personnel working on Luminant property.
- P. Contractor shall have a safety and health program that meets the requirements of 30 CFR 77.1708 A hard copy must be presented to the local safety department before commencing work.
- Q. Contractor shall submit a NIOSH medical plan as required by the MSHA dust program. (See the site safety dept. with questions on applicability)
- R. Contractors with approved NIOSH medical plans shall provide proof that all personnel hired after the plan start date have received a chest x-ray from an approved facility.
- S. Contractor shall provide appropriate log books for on-shift

and electrical inspection logs. The electrical log shall have a current copy of the MSHA certified electrician card.

- T. Portable toilets must be provided for each active work location. There must be a minimum of one toilet for 10 workers in each work area. The toilets shall be located at least 25' from an active haul road or ramp and protected by a berm. The unit(s) shall not be located in a curve, or at the top or base of a ramp or edge, nor at the top or base of highwalls or spoils. The area surrounding the unit(s) shall be bladed.
- U. The contractor, its agents, and all contractor personnel shall conduct their work in accordance with all Luminant, MSHA, OSHA (if applicable), and contractor safety and health regulations. The most stringent of these rules shall govern. The contractor shall report all accidents, incidents, injuries, equipment damage (contractor and Luminant), and near misses involving contractor personnel to the Luminant Mining contractor coordinator and/the safety department immediately. All MSHA 30 CFR Part 50 Accident Reporting Guidelines shall be followed. Copies of all injury and accident reports, including MSHA 7000-1 reports, shall be sent to the Luminant Mining site safety representative.
- V. Contractors shall maintain an up-to-date list (each shift) of all personnel on site. All contractor personnel shall have their names on the front of their hard hats. Names shall be the same as on payroll; i.e., "Johnathan Doe."
- W. Contractor personnel shall not smoke in Luminant buildings, vehicles or equipment. No person shall smoke or use an open flame where such practice may cause a fire or explosion. Electric cigarettes are considered the same as cigarettes.
- X. Contractor equipment shall have radio capabilities that will allow communications in the work area. Contractor personnel shall adhere to the Luminant three-way communication protocol and use of phonetic alphabet.
- Y. Berms shall be constructed on all elevated roadways and at the edge of highwalls. These berms shall be mid-axle height of the largest piece of equipment that regularly utilizes the roadway. These berms are to be constructed in accordance with MSHA 30 CFR part 77.1605(k), 77.1608(a-e) and MSHA guidelines found in MSHA Program Policy Manual.

Z. Contractor shall report monthly hours worked on Luminant property each month to the Luminant representative (project lead).

PERSONAL PROTECTIVE EQUIPMENT (PPE)

- A. *All PPE shall be inspected and properly worn according to manufacturer specifications.*
- B. Hard hats, protective footwear and safety glasses with side shields or side shield protection are required at all times, except while working in offices, operator cabs, control rooms, or doing work that requires special protective equipment.
- Protective footwear must be ANSI, ASTM F2413-05 or ANSI Z75 approved.
 - Exposed steel on the toe of any safety shoe is unacceptable.
 - Safety glasses must meet ANSI Z87.1 standards. Shaded lens shall be worn during daylight hours only, and shall not be worn in areas where there is inadequate light.
- C. Face shields with safety glasses shall be used for grinding, chipping and operations involving striking metal against metal; this includes all personnel assisting or working in the immediate area. While pressure washing, face shields with safety glasses or face shields with goggles shall be used. Any chemical handling where a splash back exposure may occur requires chemical/splash-proof goggles or a face shield with safety glasses. (Face shields shall be used when fueling equipment equipped with a Wiggins nozzle)
- D. Welding hoods with hard hats shall be worn when electric-arc welding or arc gouging is being performed; this includes personnel assisting or working in the immediate area.
- E. High-visibility vests/clothing shall be worn when working outside of buildings or vehicles/equipment while on mine property. The clothing must meet the criteria in ANSI 107-2004 Class 2.
- F. When acetylene welding or cutting operations are in progress, welding goggles or an approved face shield with proper tinting shall be worn.

- G. Hearing protection shall be worn when working in or around high-noise-level areas (85 dB or greater) or where posted.
- H. Contractors are required to comply with 30 CFR Part 62 Hearing Conservation Program (HCP). If a miner is exposed to sound levels that require the miner to be enrolled in HCP, records of initial base line testing must be kept by the contractor for inspection by MSHA and validation by Luminant safety.
- I. Dual-hearing protection is required for certain applications (arc gouging, use of impact tools, grinding, dragline machine house, dragline revolving frame, or dragline fan house of an operating dragline, etc.). See site safety department for more details.
- J. Proper respiratory protection shall be worn when working with or near hazardous materials requiring a respirator. Respirator hoods with Class D air are required while sandblasting. The ANSI Z88.6, 1984 or later standard, pertaining to the qualifications for respirator use, shall be followed. If contractor personnel are required to wear a respirator, adherence to the contractor's respiratory protection plan is required. If no plan exists, contractor personnel may not wear respirators until the plan is established and implemented.
- K. All contractor personnel and visitors shall wear hard hats meeting the requirements of ANSI Z89.1. Metal hard hats are not allowed. Hard hats must be worn properly (No backward hard hats only during welding operations)
- L. "Inexperienced miners" must wear yellow hard hats for one calendar year from their initial training date. Hard hats shall be worn properly and the contracting company name and the name of employee shall be printed on the miner's hard hat. The hard hat shall be inspected for defects, such as cracks, perforation and deformity, and shall be removed from service if any defects are found.
- M. Safety harnesses shall be worn where a falling hazard exists. All safety harnesses must be inspected before each use in accordance with manufacturer's recommendations. All fall-protection equipment must be inspected annually by a contractor's competent person.
- N. Confined space entry must follow recognized safe working

practices and MSHA regulations regarding entering tanks or other dangerous areas. At a minimum, atmospheric testing must be performed, attendant is required and the entrant must wear a lifeline. Many other factors are associated with confined space identification and entry. See site safety department for more information.

- O. All personnel shall wear United States Coast Guard (USCG) approved life vests where there is danger of falling into the water. Life vests shall be provided in equipment which operates around bodies of water.
- P. When operating equipment and vehicles, all operators/drivers shall solidly sound horn once before going forward and twice before backing up.
- Q. Flame retardant clothing/coveralls shall be worn when welding, cutting, performing live electrical work or any job performed near an open flame. Flame retardant clothing/coveralls shall be washed and maintained according to manufacturer's specifications.

EXCEPTION: Rain suits may be worn outside when weather conditions warrant.

HOUSEKEEPING

- A. Clean and orderly work areas encourage safe work habits. Good housekeeping helps prevent incidents and injuries. A job is not complete until the housekeeping is complete.
- B. Tools and working materials should be stored in proper storage places when not in use.
- C. Trash and debris should be disposed of in correct containers.
- D. Keep floors clear of tools, hoses and other equipment when not in use.
- E. Hazardous materials shall be used, stored and disposed of in a manner approved by the company. Pressurized aerosol containers shall be stored properly in designated areas when not in immediate use.
- F. All welding leads, air hoses, etc. shall be routed overhead or in such a way to avoid tripping hazards and to prevent hose

or leads damage.

MOBILE EQUIPMENT

- A. Vehicles and mobile equipment are to be operated in a safe manner at all times by authorized licensed and/or properly task-trained personnel only.
- B. Mobile and stationary machinery and equipment shall be maintained in safe operating condition. Machinery or equipment in unsafe condition shall be removed from service immediately. Equipment condition shall meet all MSHA 30 CFR rules/regulations in regards to mobile equipment.
- C. The driver is responsible for the safety of all passengers and the stability of materials being hauled.
- D. Obey all posted signage - speed limits, traffic, communications, etc.
- E. Give pedestrians the right-of-way.
- F. Adjust vehicle speeds to road and weather conditions.
- G. Seat belts, where provided, shall be used at all times.
- H. Personnel shall not ride as a passenger on forklifts, cherry pickers or other mobile equipment unless a safe passenger seat with a seat belt is provided.
- I. Dippers, buckets, scraper blades and similar movable parts shall be properly secured or lowered to the ground when not in use.
- J. Backup alarms shall be provided and maintained on specified vehicles and equipment. Vehicles with an obstructed rear view or carrying loads that obstruct the rear view of the back window for the operator shall require a backup alarm. Wheel hub bells are not considered backup alarms. Alarms shall be audible above the surrounding noise levels and automatically activated by the transmission being placed in reverse.
- K. Travel alarms are required on all equipment that can be pivoted 360 degrees and there is no fixed forward or reverse with the exception of draglines.
- L. Mobile equipment shall be equipped with a fire extinguisher.

- M. Two fire extinguishers are required on lube trucks and vehicles with bulk fuel storage tanks.
- N. Lights shall be provided on both ends of mobile equipment (includes excavators).
- O. Horns, alarms, lights and parking brakes shall be operable and maintained.
- P. Excess accumulations of oil, grease, fuel or fuel leaks are not allowed.
- Q. Horns shall be sounded before equipment is started *and* before movement.
- R. A “No Smoking and No Open Flame” sign is required on fuel storage tanks.
- S. Permanent and stationary fuel storage tanks shall be grounded.
- T. All tanks shall be properly labeled and/or maintained according to their content and according to the National Fire Protection Association (NFPA) recommendations, as well as environmental guidelines.
- U. Dozers, front-end loaders, tractors, motor graders, compactors, backhoes and scrapers shall be equipped with approved Roll Over Protective Structures (ROPS). Labels shall be attached or a written certification shall be provided. Repairs of ROPS shall be performed by welders who are certified as being qualified in accordance with the American Welding Society Structural Code AW S D1.1-73 or equivalent thereof.
- V. Mobile loading and haulage equipment shall be inspected by a competent person before such equipment is placed in operation. A pre-operational inspection shall be documented, safety issues recorded and reported to the contractor’s supervisor. Safety issues shall be corrected before being placed into service.
- W. Pre-operational inspections shall be conducted on equipment that does not require an operator, such as trailers, pumps, light plants, welding machines, portable steam cleaners,

generators, air compressors, electric pumps on barges, overhead cranes, and other similar equipment.

- X. Mobile equipment shall not be parked and/or left unattended on ramps or steep grades. If a situation arises where equipment fails while on a ramp or steep grade, the operator must remain in the cab, lower implements and set all applicable brakes, then notify their supervisor.
- Y. Vehicles shall follow at a safe distance.
- Z. Vehicles, one-ton and below, shall be equipped with safety whips at least eight feet in height from the ground and have a fluorescent-colored flag that contains retro-reflective material on the flag.
- AA. Passing shall be limited to areas of adequate clearance and visibility. Radio communications shall be established for authorization to pass. Three-way communications is required. Radio communication shall be established before descending or ascending ramps.
- BB. Dippers, buckets, loading booms, or heavy suspended loads shall not be swung over the cabs of haulage vehicles until the drivers are out of the cabs and in safe locations, unless the trucks are designed specifically to protect the drivers from falling material.
- CC. Contractor personnel shall not mount or dismount moving equipment.

EXCEPTION: Trainmen may get on or off of slowly-moving trains.
- DD. Open cab equipment must be evaluated for operator exposure and compliance with 30 CFR Part 62 prior to operating in the mine. Contractor will provide documentation of compliance to Luminant representative (project lead) or site safety department.
- EE. Mobile equipment shall not be left unattended unless the brakes are set. All light vehicles must be chocked when not in use. All rubber-tired or tracked equipment without ground-engaging implements shall be properly chocked when not in operation.

- FF. Ground engaging implements on mobile equipment can be used in lieu of chocks except when performing maintenance. Chocks shall be used on all rubber-tired mobile equipment while maintenance is being performed.
- GG. All equipment must be evaluated for potentially hazardous stored energy and blocked accordingly when maintenance is being performed.
- HH. Unattended mobile equipment shall have the brakes set to prevent movement. Brakes of equipment shall be set and equipment chocked to prevent movement before any maintenance is performed. Brakes shall be maintained.
- II. Any personnel, before entering the operating radius of a dragline, must secure authorization from the dragline operator.
- JJ. Cabs of mobile equipment, including vehicles, shall be kept free of extraneous materials. Items in the cab shall be properly secured to prevent any hindrance of operating controls, visibility, or access to entrances and exits. Where provided, holders shall be used for all soft or hard-sided lunch boxes and water containers.
- JJ. Equipment utilized for logging shall be equipped with a forestry kit that affords the machine operator maximum protection, such as 1/4" mesh screens with 2" openings covering windows or certain clear polycarbonates or other material which provide equivalent or greater protection and visibility. Contact Luminant representative (project lead) or Luminant safety representative on site for more details.
- KK. All-terrain and rugged-terrain vehicles (ATV/RTV) are not to be used as a primary mode of transportation. A Department of Transportation-approved motorcycle helmet is required when roll over protection is not provided. The vehicle shall have a fire extinguisher, a flag with reflective markings, and a means of communication. Items being transported shall be secured. These vehicles are not permitted to travel on active haul roads, in active pits or in areas where heavy equipment is working.

TOOLS AND EQUIPMENT

- A. Each tool or piece of equipment should be given a visual inspection before using.

- B. Defective tools should be tagged out immediately and removed from service.
- C. Tools and equipment must be maintained in good condition.
- D. Only qualified persons are to use tools and equipment.
- E. Tools or guards are not to be altered.
- F. Personal tools follow the same guidelines and are subject to inspection at any time.
- G. Handheld power tools shall be equipped with controls requiring constant hand or finger pressure to operate the tools or shall be equipped with friction or other equivalent safety devices.
- H. All electrical-powered equipment and electrical tools shall be inspected by a MSHA-qualified electrician **before being brought onto the mine site** and re-inspected each month thereafter. Documentation of such inspections shall be maintained at the mine site. A copy of the current MSHA Card for the Qualified Electrician shall be in the electrical log book.
- I. Portable generators and welding machines shall be grounded with an approved grounding rod as required. Portable generators, regardless of location, shall be grounded by an approved grounding rod.
- J. Tools shall be used only for their intended purpose.
- K. Tools subject to impact, such as chisels, sledge hammers, etc., shall be kept dressed to avoid flying chips.
- L. Do not force tools beyond their capacity.
- M. “Cheaters” or cheater extensions are not allowed unless so designed by the manufacturer for that specific tool.
- N. Homemade tools must be approved by a certified engineer.
- O. Rigging:
 - 1. Know the proper use of chain falls, chokers, shackles and clamps.

2. Never raise or swing a load over people.
3. Use tag lines to control the load.
4. Know the capacities of rigging equipment and weight of loads.
5. Lifting straps and chokers shall have load rating tags or label.
6. Barricade area to prevent personnel from walking under load. Barricading shall be maintained when active and removed when inactive.
7. Metal-to-metal contact, when at all possible, shall be avoided (i.e., using dead blow hammers, wooden blocks, etc.).

CONTRACTOR LOCKOUT/TAGOUT SPECIFICS

- A. Contractor's lockout/tagout procedures shall provide equal to or greater margins of safety than the Luminant Mining tag and lock procedures. If not, the Luminant Mining lockout/tagout procedure shall be followed. See the following guidelines:
 1. Contractor personnel shall use proper locks and tags where lockout-tagout-verify (LOTOV) is required.
 2. Personnel shall place their personal protection lock and green danger tag to achieve full protection.
- B. Contractors are expected to provide approved locks for the

purpose of personal protection. Luminant's preferred color for contractor locks is green. Locks shall NOT be black, blue or red. These lock colors have other specific designations in Luminant's LOTOV program.

1. Contractor's locks:

- a. Shall be keyed locks; NO combination locks allowed;
- b. Shall have only one key available for each contractor personnel's personal protection lock(s);
- c. Shall be substantial enough to prevent inadvertent or unauthorized removal without the use of excessive force;
- d. Shall be identified by the use of a green personal danger tag.

NOTE: Luminant will have green locks available for issue to contractors who fail to supply personnel with an adequate number of approved locks. These locks will be for temporary use and must be returned after work is complete.

WELDING AND CUTTING

- A. Inspect all leads, grounds, clamps, welding machines, hoses, gauges, torches and cylinders each day before use.
- B. Fire extinguishers must be close at hand before beginning a welding or cutting operation. Be sure you know how to operate the fire extinguisher. Fire extinguishers shall not be taken off equipment or vehicles to be utilized as the welding/cutting fire extinguisher.
- C. Fire extinguishers shall have both an annual inspection tag and a monthly inspection tag.
- D. To protect other personnel, all welding arcs should be shielded from all sides in well-ventilated operating areas.
- E. Where cylinders are equipped with gauges, they shall be adequately guarded. All cylinders must be shut off and be pressure released when not in use.
- F. All cylinders shall be secured in the upright position.
- G. Oxygen and acetylene equipment shall be equipped with flashback arrestors and reverse flow check valves.
- H. Welding terminal connections shall be guarded by a cover or rubber boot.
- I. Welding machines shall be grounded according to procedure.
- J. Class D air shall be supplied in areas where the air quality does not meet the standards set forth by MSHA for oxygen levels, concentration of carbon dioxide and other toxic gasses, as well as other contaminants.
- K. Grade D air compressors or air compressors with Grade D air filtration systems shall be tested annually and a record of such inspection shall be maintained.

BARRICADING AND SAFEGUARDS

- A. Openings in surface installations through which people or material may fall shall be protected by railings, barriers, covers or other protective devices.
- B. Proper barricades must be installed prior to creating a hole or opening, or if there is a potential for any falling hazard.
- C. There are two types of barriers/barricades:
 - 1. Warning Barricade - barricade tape or rope shall be used to call attention to the hazard.
 - 2. Protective Barricade - usually constructed from heavy material, such as lumber, angle iron, or posts with cable. In some cases, an adequate berm will suffice.
- D. The following shall be barricaded:
 - 1. floor and ground openings;
 - 2. area underneath temporary elevated platforms;
 - 3. handrails, guardrails or covers temporarily removed to facilitate work;
 - 4. excavations and trenches;
 - 5. road obstructions/repairs;
 - 6. crane barricades;
 - 7. overhead work;
 - 8. area underneath overhead conveyor belts;
 - 9. any other potential hazard.
- E. Berms or guards shall be provided on the outer bank of elevated roadways to at least axle high of the largest vehicle utilizing the roadway.
- F. All barricaded areas should have signs describing the hazard.
- G. Personnel shall not violate a barricaded area unless they are required to be in the area and are aware of the hazards that exist.
- H. When the hazard no longer exists, signs and temporary barricades shall be removed promptly.
- I. Where overhead repairs are being made at surface installations, and equipment or material is taken into such overhead work areas, adequate protection shall be provided

for all persons working or passing below the overhead work areas in which such equipment or material is being used.

FIRE PREVENTION

- A. All precautions shall be taken to prevent a fire or explosion.
- C. Personnel shall be aware of and be knowledgeable about how to use the nearest fire extinguisher.
- D. Personnel shall be aware that certain toxic fumes may be generated by a fire.
- E. Fire extinguishers shall have a permanently attached inspection tag (metal or plastic) that reflects that a monthly visual inspection has been conducted. An Annual Maintenance Inspection Tag shall be attached as well indicating that annual maintenance has been conducted. Two extinguishers are required on lube trucks and vehicles with bulk fuel storage tanks. Untagged fire extinguishers shall be considered empty. An annual inspection must be conducted by a certified inspector.
- F. Fire extinguishing equipment should be readily accessible. Never store any equipment or material in a position that would obstruct the view of or access to firefighting equipment.
- G. Discharged extinguishers should be replaced promptly after use.
- H. Two portable fire extinguishers or the equivalent shall be provided at above ground or unburied combustible liquid storage stations.
- I. Labels must be maintained in legible condition and shall be affixed to all fire extinguishers. National Fire Protection Association guidelines shall be used for inspection and maintenance purposes.
- J. No smoking or open flames are allowed within 25 feet of flammable storage tanks or flammable storage areas. All personnel must observe "No Smoking and No Open Flame" signs. Signs warning against smoking and open flames shall be posted so they can be readily seen in areas or places where fire or explosion hazards exist.
- K. Areas surrounding flammable liquid storage tanks shall be

kept free from grass (dry), weeds, underbrush and other combustible materials such as trash, rubbish, leaves and paper, for at least 25 feet in all directions.

- L. Equipment in Luminant fire hose cabinets, such as hoses, nozzles, wrenches, etc., shall not be used for any purpose other than firefighting.
- M. Berms around fuel storage areas must comply with NFPA 30 Standards. Self-contained tanks are acceptable. See site environmental department for placement and/or other information.
- N. The use of flammable (flashpoint <100 degrees Fahrenheit) solvents are prohibited without special permission from Luminant. Approved safety cans must be used for flammable liquids including diesel. Plastic gas cans are not allowed.

ELECTRICAL RULES

- A. Only MSHA-qualified electricians may perform electrical work on mine property. All electrical work shall be performed in accordance with 30 CFR Part 77.104 for qualification and 30 CFR Part 77.500 through 30 CFR Part 906.
- B. Precautions shall be taken when operating near an overhead power line. The booms and masts of the equipment shall not be operated within 10 feet of any energized power line. Where the voltage of overhead power lines is 69,000 volts or more, the minimum distance from the boom or mast shall be as follows:

Nominal power line voltage (in 1,000 volts) minimum distance (feet)

69 – 114	12
ft.	
115 – 229.....	15
ft.	
230 – 344	20
ft.	
345 – 499	25
ft.	
500 or more.....	35
ft.	

- C. All electrical tools, cords, equipment, etc. shall be inspected monthly by an MSHA-qualified electrician prior to use on mine property. Records relating to these inspections shall be kept on the mine site.

MATERIALS HANDLING

- A. Personnel shall keep their backs straight and use the proper lifting methods.
- B. Personnel shall keep their distance from loads being hoisted, such as transformers, heavy machinery, and parts of heavy equipment, except when it is necessary to guide equipment for critical line up only.
- C. Cranes shall be inspected annually and inspection sticker or paperwork shall be provided.
- D. Taglines of suitable length shall be used to steady hoisted materials.
- E. In lifting heavy equipment, wire rope or chain slings of suitable strength may be used. Slings shall be placed to avoid cutting them on sharp edges of equipment. Non-metallic slings of suitable strength will be permitted for lighter work if they cannot be cut by sharp edges or projections. Rope or nylon slings only shall be used around energized equipment if the use of metal slings would create a hazard. Lifting devices must have a rating tag attached to ensure they meet the load demand.
- F. Damaged slings shall be discarded.
- G. Tow bars shall be used to tow equipment, and a safety chain shall be used in conjunction. If the safety chain is designed with a safety latch, it has to be maintained. Towing with chains, wire chokers and slings is not allowed.

NOTE: pulling vehicles out of a ditch is not considered towing.
- H. Chains should not be used for pulling in general.
- I. Pins used for towing shall have a keeper or a safety pin.

CHEMICALS / TOXIC SUBSTANCES

- A. Contractors are required to comply with Part 47 Hazcom regulations and the global harmonization system.
- B. If chemicals will be brought to the mine, a current Hazcom plan must be made available.
- C. Safety data sheets (SDS) shall be made available for all chemical or hazardous products handled.
- D. All liquid containers must be properly identified as to contents.

TRAINING REQUIREMENTS

- A. All contractor personnel who work on site shall complete the required training, outlined below, prior to beginning work:
 - 1. Part 48 (b) Training Requirements (as outlined in CFR 30, Mineral Resources);
 - 2. Part 71 Mandatory Health Standards (as outlined in CFR 30, Mineral Resources); (if applicable)
 - 3. Part 77 Safety Requirements (as outlined in CFR 30, Mineral Resources); (if Applicable)
 - 4. Part 62 Noise Regulations; (if Applicable)
 - 5. Part 47 HAZCOM Regulations Part 50 Reporting Regulations. (if applicable)
- B. Records of all training required by Luminant or MSHA shall be furnished prior to beginning work.
 - 1. MSHA Part 48 and 77 Training plans, Hazcom plan, Hearing Conservation Plan, Medical Plan, shall be provided upon request.
- C. Where applicable, contractor shall have MSHA-certified supervisory personnel and safety personnel on each shift. A certified safety person is highly recommended (CSP, CMSP, CSHO or equivalent). On-shift inspections shall be performed by a person who holds a current Surface Certification from MSHA. All required on-shift inspections shall be performed in accordance

with 30 CFR 77.1713 and recorded in a bound book as required by the regulation. All on-shift books shall be stored in a safe location protected against fire and theft.