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SAFETY

Bayer Construction Company, Inc.

SAFETY MANUAL

Updated 11/2015

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Safety Policy

A. Company Policy

Bayer Construction Company Incorporated is dedicated to providing a safe and healthy work environment for all of our employees, sub-contractors, and customers. Bayer Construction shall follow operating practices that will safeguard employees, the public and Bayer Construction operations. **We believe all accidents are preventable.** Therefore, we will make every effort to prevent accidents and comply with all established safety and health laws and regulations.

All sub-contractors will be given a copy of all Safety Rules when they arrive at the job site. All sub-contractor employees must review these rules before beginning work and must sign a statement indicating his/her understanding and acceptance of these rules.

All sub-contractor employees will also be shown the location of all emergency equipment and Material Safety Data Sheets (MSDS), telephones, and evacuation routes.

B. Management Commitment to Safety

Management is concerned about employee safety. Accidents, unsafe working conditions, and unsafe acts jeopardize both employees and Bayer Construction resources. Injuries and illnesses result in discomfort, inconvenience and possibly reduced income for the employee. Costs to Bayer Construction include direct expenses (workers' compensation premiums, damaged equipment or materials, and medical expenses) and indirect expenses (loss of production, reduced efficiency, employee morale problems, etc.). These indirect costs are reported to cost 4-10 times more than the insured costs of an accident. Accordingly, management will provide sufficient staffing, funds, time and equipment so that employees can work safely and efficiently.

C. Assignment of Responsibilities

Safety is everyone's responsibility. Everyone should have a safe attitude and practice safe behavior at all times. To best administer and monitor our safety policies, the following responsibilities are delegated. The list should not be constructed as all-inclusive and is subject to change as needed

1. Management will:

a. Provide sufficient staffing, funds, time and equipment, so that employees can work
b. safely and efficiently.
c. Demand safe performance from each employee and express this demand periodically
d. and whenever the opportunity presents itself.
e. Delegate the responsibility for a safe performance to the Safety Director, Supervisors, and Employees, as appropriate.
f. Hold every employee accountable for safety and evaluate performance accordingly.
g. Periodically review the Safety Program effectiveness and results.

2. Safety Director, Stan Hambright, will:

a. Provide the resources, direction, and audits to integrate safety into the management system.
b. Establish and maintain a safety education and training program.
c. Periodically conduct safety surveys, meetings, and inspections.
d. Advise supervisors and employees on safety policies and procedures.
e. Assure that all newly hired employees have been given a thorough orientation concerning Bayer Construction's Safety Program
f. Coordinate with Human Resources pre-employment physicals and maintain the company's drug-testing program.
g. Prepare and maintain safety records, analysis, evaluations, and reports to improve Bayer Construction's safety performance and comply with all government agencies, insurance carriers, and internal procedures.
h. Work with management, supervisors and employees to maintain and implement new and ongoing safety programs, and comply with recommendations provided by outside consultants, OSHA inspectors, and insurance companies.
i. Make available all necessary personal protective equipment, job safety material, and first-aid equipment.
j. Review all accidents with management, supervisors and/or employees and ensure that corrective action is taken immediately.
k. File all workers' compensation claims immediately and work with the worker's compensation carrier to ensure proper medical treatment is provided to injured workers and they are returned to work as quickly as medically possible.

3. Superintendent/Foreman on each jobsite will:

a. Implement all rules and regulations outlined in this Manual.
b. Comply with all Contractor Safety Rules
c. Assure that each employee, agent, invitee, and sub-contractor is trained and follows all applicable OSHA standards, codes, laws and ordinances.
d. Control contract personnel and vehicles, and provide orientation materials as needed.

4. Supervisors

Each employee who is in charge of a specific work area supervises the work of others, or to whom an employee is assigned for a specific task or project, is responsible and accountable for their safety. Supervisors will:

a. Establish and maintain safe working conditions, practices, and processes through:
   - Pre-Project Planning
   - Job Inspections
   - Safety Meetings
   - Safety Training

b. Observe work activities to detect and correct unsafe actions.
c. Ensure that all injuries are reported promptly and cared for properly. That all first aid treatment is available.
d. Investigate all accidents promptly. Complete an accident report and provide it to the Safety Director the same day the accident occurs. Review all accidents with the Safety Director and employees and correct the causes immediately.
e. Assist Human Resources in the review of employment applications, pre-employment physicals reports, and personnel files to determine physical qualifications for specified job classification.
f. **Seek out alternative work so injured employees can return to work in a modified job.**
g. Consistently enforce safety rules/regulations, programs and protective measures (i.e. use of personal protective equipment, machine guarding, proper clothing, etc.)
h. Post signs, notices and instructions as needed or required.
i. Brief your employees of any new hazards before they start work and weekly host brief safety meetings to discuss safety practices related to job hazards and general safe work behavior.
j. Work with management, the Safety Director and employees to maintain and implement new ongoing safety programs and comply with recommendations provided by outside consultants, OSHA inspectors, and insurance companies.
k. Supplying all required personal safety protective devices and clothing, e.g. goggles, face shields, gloves, masks, hardhats, etc.

5. Employees

Each employee is responsible for his/her own safety. No task should be completed unless it can be completed safely. Employees will:

a. Comply with all company safety programs, rules, regulations, procedures, and instructions that are applicable to his/her own actions and conduct.
b. Refrain from any unsafe act that might endanger him/herself or fellow workers.
c. Use all safety devices and personal protective equipment provided for his/her protection.
d. Report all hazards, incidents, and near-miss occurrences to their immediate supervisor or Safety Director, regardless of whether or not injury or property damage was involved.
e. Promptly report all injuries and suspected work related illnesses, however slight, to his/her immediate supervisor or Safety Director.
f. Participate in safety meetings, training sessions, and surveys as requested and provide input into how to improve safety.
g. Notify the Safety Director immediately of any changes in physical or mental conditions or use of prescription drugs that would affect the employee's job performance or the safety of him/herself or others.

h. Be a safe worker on (and off) the job. Help co-workers do their job safely. Come to work everyday with a safe attitude.

6. Subcontractor and Their Employees

All subcontractors and their employees must:

a. Maintain a safe and health hazard free work environment.
b. Comply to all safety requirements on all job sites.
c. Stay in only their assigned work areas.
d. Not bring any explosives, firearms, alcoholic beverages, drugs, or drug paraphernalia onto any job site.
e. Wear appropriate clothing at all times. Short pants and shirtless attire are prohibited. Work shoes/boots with steel or composite toes must also be worn at all times along with safety glasses and hard-hats must also be worn at all times while on the job site.
f. Failure of any sub-contractor to comply with these rules is a breach of contract and could result in either withheld payments or contract termination. Specific sub-contractor employees could also be banned from any job site for failing to abide by these rules.

D. Accountability for Safety

Everyone is accountable for safety. Management and the Safety Director will establish safety objectives and develop and direct accident prevention activities. All employees should strive to reach those objectives and will be evaluated accordingly. Violations of the Company safety policy will result in disciplinary action; up to and including terminated.

E. Opinion Survey

Bayer Construction requests ongoing comments and feedback from all employees. In addition, annually the company will request all employees' opinions and input on Bayer Construction's Safety Program through an opinion survey. **Be honest.** You know your job better than anyone else. Therefore you can provide valuable input into performing the job safely. Changes to existing safety programs, rules, procedures, etc. may be influenced by your responses. Full cooperation of all employees is expected.

Chemicals Hazard Communication

Bayer Construction wants to ensure that information about the dangers of all hazardous materials used, are known by all affected employees and sub-contractors. A secondary purpose is to comply with the requirements of the OSHA Hazard Communication Standard and corresponding state laws.

All employees of Bayer Construction (including sub-contractors and their employees) will participate in the hazard communication program and comply with all provisions of this policy. This includes, but is not limited to, fully understanding and following all precautions listed on Material Safety Data Sheets for materials they will use, be exposed to, or handle while on the job site. The Safety Director is responsible for maintaining this program and ensuring compliance with all local, state, and federal laws.

This policy will cover container labeling, material safety data sheets employee training and information, hazardous non-routine tasks, contractors, list of hazardous chemicals, chemicals in unlabeled pipes and safety procedures.

A. Container Labeling

a. The Safety Director will verify that all containers received for use will be clearly labeled with the contents, the appropriate hazard warnings, and the name and address of the manufacturer.
b. All employee's and sub-contractor's shall not transfer any hazardous substance from a labeled container into an unlabeled container, unless in the exclusive control of that employee or sub-contractor.
c. Any material with a label missing or illegible should be reported to the supervisor immediately for proper labeling.
d. No hazardous substance from a labeled container shall be transferred into an unlabeled container unless the unlabeled container is under exclusive control of that employee or sub-contractor.
e. All hazardous material spills shall be reported to the supervisor. Do not attempt to control or clean up spills unless you have been properly trained and have the required personal protective equipment.

B. Material Safety Data Sheets (MSDS)

a. The MSDS is the main document for communicating the 1)chemical information, 2) hazardous ingredients, 3) physical data, such as the potential for fire, explosion and reactivity, 4)health hazards, 5)spill or leak procedures, 6) special protection and precautions, 7) personal protective equipment needed, and 8) name, address and phone of MSDS preparer or distributor.
b. The Safety Director, employee and sub-contractor will review the MSDS to determine safe work practices and personal protection, as needed.
c. A list can be obtained of hazardous materials in the work area from the supervisor or by consulting the MSDS book. All sub-contractors will notify the Safety Director of any hazardous chemicals which they bring into our workplace.
d. Listed chemicals are categorized by group; (P) for Petroleum products, (C) for Chemical, (Q) for Quarry and (M) for Miscellaneous. Further information can be found for each chemical by reviewing the MSDS's.

C. Employee Training and Information

a. The Safety Director will provide training to employees when hired. Training will include:
    - The Hazard Communication Policy
    - Chemicals present in their workplace operations
    - Physical and health effects of the hazardous chemicals
    - Emergency and first-aid procedures
    - How to read labels and review the MSDS to obtain appropriate hazard information

- Location of the MSDS file and written hazard communications program

b. After employees attend training class, each employee will sign a form to verify that they attended training, received the written materials, and understand the company's policies on Hazard Communications.

D. Hazardous Non-routine Tasks

a. Employees are required to perform hazardous non-routine tasks, such as Confined space entry, tank cleaning and painting reactor vessels. Prior to starting, each affected employee will be given information by the Safety Director about hazardous chemical they may encounter.

E. Chemicals in Unlabeled Pipes

a. Work activities are often performed by employees in areas where chemicals are transferred through unlabeled pipes. Prior to starting work in these areas, the employee shall contact the Safety Director for information regarding:
   - The chemical in the pipes
   - Potential hazards
   - Safety precautions which should be taken

F. Safety Procedures & Recommendations

a. Safety Wear

- ANSI approved eye or face protection should be worn continuously.
- Gloves should be worn which will resist penetration by the chemical being handled and have been checked for pin holes, tears or rips.
- Wear a lab jacket or apron.
- Footwear should cover feet completely: absolutely no open-toed shoes or sandals.

b. Facilities and Equipment

- Have separate container for trash and broken glass.
- Never block any escape routes.
- Never block a fire door open.
- Never store materials in lab or storage aisles.
- All moving belts and pulleys should have safety guards.
- Instruct lab personnel in the proper use of the eye-wash fountain, emphasizing rolling of the eyeballs, and turning eyelids "inside out".
- Ensure that eyewash fountains will supply at least 15 minutes of water flow.
- Sample breathing air space for measurement of possible contaminants, and keep good records.
- Regularly inspect fire blankets for rips and holes and keep good records of the inspections.
- Regularly inspect safety showers and eye-wash fountains and keep records of inspections.

- Keep up-to-date emergency phone numbers posted next to the phone.
- Place fire extinguishers near an escape route, not in a "dead end".
- Regularly maintain fire extinguishers, maintain records and train personnel in the proper use of extinguishers through actual fire situations.
- Acquaint personnel with the meaning of "Class A fire", "Class B fire", and how they relate to fire extinguisher uses.
- Regularly check hood for proper draft, also verify that exhaust air from an external hood vent is not redrawn into the room air.
- Secure all compressed gas cylinders when in use and transport them securely on a hand truck, install chemical storage shelves with lips, and never use stacked boxes in lieu of shelves.
- Only use an explosion-proof refrigerator for lab storage
- Have appropriate equipment and materials available for spill control replaced when it becomes dated.

c. Purchasing, Use and Disposal

- Purchase chemicals in class-size quantities only. Label all chemicals accurately with date of receipt, or preparation, initialed by the person responsible, and pertinent precautionary information on handling.
- Bottles of chemicals, generally, should not remain unused on shelves in the lab for more than one week, in the store room near the lab unused for more than one month, or in the main stockroom unused for more than one year.
- Follow all directions for disposing of residues and unused portions of reagents
- Properly store flammable liquids in small quantities in containers with a provision for bonding to receiving vessels when the liquid is transferred.
- Never open a reagent package until the label has been read and completely understood. Have a MSDS on hand before using a chemical.
- Prepare a complete list of chemicals of which you wish to dispose.
- Classify each of the chemicals on the disposal list into hazardous or non-hazardous waste chemical. (Check with the local environmental agency office for details.)
- Unlabeled bottles (a special problem) must be identified to the extent that they can be classified as hazardous or non-hazardous wastes. Some landfills will analyze a mystery bottle for a fee, if it is shipped to the landfill in a separate, with instructions to analyze the contents sufficiently to allow proper disposal.

d. Substitutions

- Reduce risk by diluting substances instead of using concentrates.
- Use films, videotapes, and other methods rather than experiments involving hazardous substances.
- Undertake all substitutions with extreme caution.

Confined Space Safety

A confined space is any enclosure that is not designed for normal occupancy by humans, contains an actual or potential safety and/or health hazard, and restricts egress to such an extent that personnel would have difficulty escaping in the event of an emergency. The following is important:

A. Only employees that have been properly trained on the hazards associated with confined space work shall be allowed to enter a confined space.
B. If work is to be performed in a confined space, the Bayer Construction written permit system shall be followed.
C. Employees who enter confined spaces or who serve as attendants must be trained in the hazards of confined space entry, confined space entry procedures and confined space non-entry rescue procedures.
D. Prior to entering any confined space a permit shall be obtained. The steps outlined in the permit shall be followed.
E. Before any entrance cover to a confined space can be removed, it shall be determined that there are not any temperature or pressure differences, or other hazardous conditions that may injure the employee removing the cover.
F. Before anyone enters a confined space all levels of the confined space area shall be tested for adequate oxygen levels and to detect the presence of any flammable or toxic gases or vapors.
G. Monitoring instruments must be calibrated before testing area.
H. If a hazard-increasing work activity is to take place in a confined space, (welding, painting, working with solvents and coatings), the flammable or toxic gases and vapors or insufficient oxygen.
I. Forced ventilation shall be used as required.
J. If flammable or toxic gases or vapors are detected or if an oxygen deficiency is found, the space shall be continuously tested and forced ventilation shall be used to maintain oxygen at a safe level and to prevent a hazardous concentration of flammable or toxic gases or vapors.
K. Any attended manholes or openings shall be guarded by railing, temporary cover, or other temporary barrier.
L. All personnel entering confined spaces must know the hazards they may face, be trained to recognize signs or symptoms of exposure, and understand the consequences of exposure to hazards.
M. Entry supervisors must:
    a. Know the hazards of confined spaces.
    b. Must verify that all tests have been conducted and all procedures and equipment are in place before endorsing a permit
    c. Verify that rescue services are available and the means for summoning them are operable.
N. Entry supervisors may terminate entry and cancel permits.
    a. They must remove unauthorized individuals who enter confined space.
    b. They also must determine that conditions are acceptable as specified in permit.
O. Entrants must know the hazards of confined spaces and know how to:
    a. Use any needed equipment
    b. Communicate with attendants.
    c. Alert attendants when a warning symptom or other hazardous condition exists.

d. Exit as quickly as possible whenever ordered or alerted (by alarm, warning sign or prohibited condition) to do so.

P. Attendants must know the hazards of a confined space.
   a. And be aware of potential exposures.
   b. Check permit of authorized entrants.
   c. Prevent entry by unauthorized personnel.
   d. Maintain a continuous count of those in a confined space.
   e. Monitor activity in the confined space.
   f. Remain outside the confined space until relieved.
   g. Communicate with the entrant.
      h. Order everyone to exit a confined space.
      i. Contact rescuers.
      j. Perform non-entry rescues.

Q. Attendants may not perform any duty that will interfere with the duties listed above.

R. Entry into a confined space with an unsafe atmosphere shall only be made by SCBA trained personnel.

S. Employees required to enter a confined space with an unsafe atmosphere shall be equipped with fresh-air breathing apparatus, body harness, and lifeline monitored by a properly trained attendant.

T. Necessary rescue personnel and equipment shall be available in the event of an emergency.

U. Electric welding, gas welding, cutting, or any other hot work shall not be performed on the interior, exterior or near the openings of any confined space that may contain flammable or explosive gases or vapors until the space has been properly ventilated to an acceptable level (below 10% LEL).

V. Safe access to the confined space shall be maintained at all times. If possible, all cords, hoses, leads, etc., shall be routed through an entrance other than the employee access into the confined space.

W. Before employees are allowed to enter a confined space, all electrical and mechanical energy sources that could affect the employees working in the space shall be physically rendered inoperative, locked out, and tagged. If required, the space shall be drained, vented, purged, or cleaned.

Remember, no authorization is to be given for entry into confined spaces that are considered immediately dangerous to an employee's life and health or where the potential exists for the generation of such.

Discipline

We recognize the need for safety policies and instructions and we know that they must be followed. Compliance with Company safety standards as well as State and Federal regulations is mandatory. It is to the good of the individual employee and others working in the area that we enact this:

A. Bayer considers the safety of our employees to be very important. Therefore, to prevent accidents, it is our intent to enforce Bayer Construction safety rules strictly.

B. Bayer reserves the right to issue disciplinary action to any employee it determines has acted unsafely, up to and including termination of employment.

Electrical Safety

The Safety Director is responsible for complying with the National Electrical Code and all Federal, State and local codes. Any electrical work not in compliance should be brought to the Safety Director's attention immediately. Electrical safety should include:

A. All extension cords must be 3-wire type, protected from damage, conforming to OSHA standards and not fastened with staples, hung from nails, or suspended from wires. **No flat electrical cords are allowed on site.** Any damaged ground plug may not be used. Splices must have soldered wire connections with insulation equal to the cable.
B. Only knowledgeable, certified electricians are to perform electrical work.
C. Receptacles for attachment plugs will be approved, concealed contact type. Where different voltages, frequencies, or types of current are applied, receptacles must be such that attachment plugs are not interchangeable.
D. Electrical cords and trailing cables should be covered, elevated or otherwise protected from damage. Any exposed wiring and cords with frayed or deteriorated insulation must be reported.
E. No employee may work in close proximity to any electric power circuit where they may be contacted during the course of work, unless they are protected against electric shock by de-energizing the circuit (lockout/tagout) and grounding it or by guarding with effective insulation.
F. Temporary lighting should be used in areas where there is not adequate natural or accidental contact with the bulbs.
G. Inspect each cord set, attachment cap, plug and receptacle of cord sets, and any equipment connected by cord and plug, except cord sets and receptacles which are fixed and not exposed to damage, before each day's use for external defects and possible internal damage.
H. Electrical tools and equipment must be appropriately protected when used in wet or damp areas.
I. Sub-contractors must obtain advanced approval from the Safety Director before bringing any heavy equipment over 18 feet high on the site. Any wide load over ten feet requires an escort, along with outage approval that must be approved.

Emergency Evacuation Plan

1. Emergency Procedures
   Our goal is to provide prompt and immediate action in any emergency to protect life, property, and equipment. In case of an emergency, the employee nearest the stricken person should call 911 (or the emergency phone number posted in your area) and direct a fellow employee to:

   a. Notify the nearest supervisor to come to the scene.
   b. Simultaneously dispatch available employees to quickly retrieve the first aid kit.
   c. An individual trained in first-aid should apply emergency rescue procedures until medical assistance arrives.

The Safety Director should be notified as well as the office. The President or Safety Director (in that order) or their designees will decide whether or not to evacuate, inspect or shut down a facility.

The sub-contractor is responsible for establishing procedures for their personnel to receive treatment for any injury, whether it is minor or major. Sub-contractors are encouraged to have at least one employee at each job site, which is trained in first-aid. After an ambulance has been dispatched, all major injuries must be reported to the job site Superintendent or Foreman.

2. Evacuation Procedures
   Each area will be assigned a primary and alternate evacuation coordinator by the Safety Director. They will be responsible for the effective evacuation of all persons. If neither is available, the supervisor is responsible for evacuation.

   When alerted by alarm or by the Evacuation Coordinator(s) to evacuate, employees should:

   a. Properly secure all classified materials in your possession and assure all classified containers and areas are properly locked.
   b. **Proceed to the nearest exit and assemble in the designated area.**
   c. Remain in the designated area until instructions are provided.

Equipment Operation

All operators will be trained by another operator, their Supervisor or by the Safety Director. The following are the minimum safety practices for equipment operations:

a. Only trained employees will operate electric, gas or hand-powered tools or equipment.
b. Prior to use, all equipment must be thoroughly checked by the operator and if there are any defects, they must be reported and hazardous conditions must be corrected before the equipment can be operated.
c. Passengers are not permitted on any piece of equipment except for training purposes. Loads must never be passed over workmen and no one is allowed to walk or stand under overhead loads and booms.
d. Mobile equipment should never be left unattended without first shutting off power, neutralizing controls, setting brakes, and lowering fork or bucket. Do not park on an incline.
e. All mobile equipment must have a **functional** fire extinguisher on board.
f. Personal protective equipment should be used as instructed. Hard hats should be worn at all times.

Excavation and Trenching

At least 48 hours before digging, call 1-800-DIGSAFE for Kansas One Call utility location service and have all underground utilities marked in the excavation area. Locations of all underground utilities should be located before any excavation begins. The Safety Director must issue an excavation permit prior to any excavation, digging, trenching, or drilling. This permit must remain on the job site until all work is completed. The following must also be followed:

a. Daily inspections must be made for all excavations and trenching.
b. OSHA standards require that rain water run-off is directed away from the trench or excavation as it causes erosion.
c. All trenches 4 feet or deeper must be protected from cave-in with appropriate sloping, benching shoring or shielding.
d. Vehicles and equipment should be kept safely from the edge of the excavation. All dirt from the trench should be piled at lease 2 feet from the excavation.
e. Use barricades or signals to keep traffic away from the edge of the trench.
f. Make sure there are ladders or ramps at least every 25 feet from entry and exit.
g. When providing walkways across trenches 6 feet or deeper, proper guardrails must be installed on the walkway.
h. In the event that you encounter someone caught in a trench cave-in, call for help and do not under any circumstance try to rescue the individual.
i. Hard hats must be worn during all excavation and trenching activities
j. Under no circumstance is anyone to get into an unsafe trench or excavation.

Fall Hazards

This policy is to establish guidelines to prevent employees from serious injury if they fall on the job. OSHA revised its construction industry safety standards for fall protection requirements (Codes 1926.5, 1926.501, 1926.502 and 1926.503) and has developed systems and procedures designed to prevent employees from falling off, onto, or through working levels and to protect them from being struck by falling objects. The following should be for all employees:

a. When exposure to a fall in excess of 4 feet, the employee shall be protected by the use of fall-arrest equipment or positioning devices such as body harnesses, lanyards, lifelines, and rope grabs.
b. Shall rig fall arrest so that they cannot free fall more than 6 feet or contact any lower object. Anchorage points for fall-arrest equipment and positioning devices shall be capable of supporting 5,000 lbs. and located above the employee's harness attachment point.
c. Body belts are not to be used as fall arresting devices.
d. Avoid the following lanyard snap-hook connections to help eliminate the possibility of accidental disengagement (roll out):
    i. Snap-hooks without locks.
    ii. 2 or more snap-hooks connected to one D-ring.
    iii. 2 snap-hooks connected to each other.
    iv. A snap-hook connected back on its integral lanyard.
    v. Improper dimension of the D-ring, rebar, or other connection to the snap-hook dimension.
e. Snap-hooks may not be connected to loops make in webbing-type lanyards.
f. Prior to each use, the employee shall visually inspect all fall-arrest equipment and positioning devices for cuts, cracks, tears or abrasions, undue stretching, overall deterioration, mildew, operational defects, heat damage, or acid or other corrosion. Equipment showing any defect shall be withdrawn from service.

g. Store all fall-arrest equipment and positioning devices in a cool dry place, which is not subjected to direct sunlight.
h. Do not use fall-arrest equipment or positioning devices until employee has been properly trained in their use.

Fire Extinguishers

All employees should know the classes of fire, their burning characteristics, and the proper extinguishing agents to be used:

a. **Class A** fires involve ordinary combustibles, such as wood, paper, and textiles. Extinguishing agents include water, multipurpose dry chemical, high expansion foams.
b. **Class B** fires involve flammable liquid and gas fires, such as oil, gasoline, paint and grease. Extinguishing agents include carbon dioxide, dry chemical, low expansion foam.
c. **Class C** fires involve energized electrical equipment. Extinguishing agents include CO2, dry chemical.
d. **Class D** fires involve combustible metals, such as magnesium, potassium, zinc, and titanium. Extinguishing agents include specialized dry chemicals. Never put water on a Class D fire. Always call fire department with any Class D fire.

All employees will be trained on the operation of the fire extinguisher in their work area. The following general guidelines shall be considered when using a portable fire extinguisher:

a. Look to see what is burning and make sure to use the correct extinguisher.
b. Approach the fire from upwind if possible.
c. Try to get within 6 to 8 feet of the fire.
d. Hold the extinguisher upright and aim it at the base of the fire, not the flames.
e. Be efficient, most fire extinguishers are emptied within a few seconds.

Remember PASS
P - Pull the pin
A - Aim at the base of the fire
S - Squeeze the handle
S - Sweep back and forth

All fire extinguishers shall be inspected visually at least once a month and thoroughly inspected at least annually, and included in all preventative maintenance schedules.

Fire Hazard Protection Plan

Awareness of your surroundings and good housekeeping are important for fire hazard protection, along with the following:

a. Oily rags, paper shavings, trim, etc., should be cleaned up and placed in trash receptacles.
b. Welding or cutting should not take place near locations where flammable or combustibles are present. When welding or cutting occurs, the area should be protected with fire resistant blankets and an approved fire extinguisher should also be located at each welding or cutting facility.
c. All flammable liquids should be stored in an approved manner and dispensed in approved safety containers. Welding gases should also be stored in an isolated area.
d. Liquefied Petroleum (LP) Gas presents special fire and explosion hazards. Only qualified persons are to handle LP gas. LP gas units should be inspected daily for leaks, etc.
e. Open fires of any kind are not permitted.
f. Combustible materials or equipment in combustible containers should be stored.
g. Fire extinguishers should be recharged and inspected regularly. A tag indicating the date of recharging should be affixed to each extinguisher.
h. Access to fire hydrants should be maintained at all times. Fire hydrants should never be blocked or obstructed in any way.
i. All combustible waste materials, rubbish, and debris should be disposed of daily.
j. Smoking is prohibited in any hazardous area and "No Smoking" signs should be posted in these areas.
k. Gas cylinders should be transported and stored in an upright position. When stored for extended periods of time, they must be kept at least 25 feet from oxygen cylinders.
l. No material should be stored within 3 feet of an electrical panel, outlet, or fire suppression equipment.

First Aid and Medical Services

When a medical facility is not readily accessible, a person trained to render first aid will be available at the worksite.

First aid supplies must be readily available. Emergency telephone numbers are 911.

Flammable and Combustible Liquids

The following is approved:

a. Only approved containers and portable tanks will be used for storage and handling of flammable and combustible liquids. Approved metal safety cans are specified for use in handling and use of flammable liquids in quantities greater than one gallon. Safety cans are defined as "an approved closed container, of not more than 5 gallons capacity, having a flash-arresting screen, and a self-closing lid."
b. "Combustible Liquid" means any liquid having a flash point at or above 140°F and below 200°F.
c. "Flammable Liquid" means any liquid having a flash point below 140°F and having a vapor pressure not exceeding 40 pound per square inch at 100°.

d. "Flash Point" of a liquid means the temperature at which it gives off vapor sufficient to form an ignitable mixture with the air near the surface of the liquid or within the vessel used.
e. No more than 25 gallons of flammable or combustible liquids may be store in a room outside of an approved storage cabinet. Post conspicuous and legible signs prohibiting smoking in service and refueling areas.

Fleet Safety

All employees who drive a company vehicle must abide by the following Motor Vehicle Rules:

a. Employees are required to inspect their assigned vehicle (before taking it on the road) to ensure that it is in safe working condition. This includes properly working brakes, horns, and back up alarms. The attached inspection form should be used.
b. Any defects in the company vehicle should be reported promptly.
c. Employees are required to obey all state, local and company traffic regulations.
d. **Employees are not permitted to use personal cars or motorcycles for company business unless specifically authorized by the supervisor. Those authorized to use their personal vehicle must submit a copy of their proof of insurance to the office.**
e. Passengers not employed by the company are not permitted unless authorized by the supervisor.
f. Employees should drive safely. Defensive driving must be practiced by all employees.
g. Seat belts and shoulder harnesses are to be worn at all times.
h. Vehicles must be locked when unattended to avoid criminal misconduct.
i. Vehicles must be parked in legal spaces and must not obstruct traffic.
j. Employees should park their vehicles in well-lighted areas at or near entrances to avoid criminal misconduct.
k. **Employees should keep their headlights on at all times while driving a vehicle.**
l. A vehicle when loaded with any material extending 4 feet or more beyond its rear shall have a red flag or cloth 12 inches square attached by day, or a red light visible for 300 feet by night, on the extreme end of the load.
m. Articles, tools, equipment, etc. placed in cars or truck cabs are to be hung or stored in such a manner as not to impair vision or in any way interfere with proper operation of the vehicle.
n. When you can not see behind your vehicle (truck), the driver should walk around the truck prior to backing.
o. Personal use of vehicles is not permitted without approval of management. Children are prohibited from using company vehicles.
p. Operating a company vehicle while under the influence of alcohol and or drugs is prohibited. Violators are subject to termination of employment.
q. Every accident should be reported to the Safety Director. The Safety Director should investigate all accidents and review them with the Supervisor and employees.
r. All sub-contractor personal vehicles must be parked in areas designated as contractor parking.
s. **When operating vehicles on the job site, speeds must not exceed posted speed limit or the appropriate speed for weather and job site conditions.**

General Ladder Safety

All manufactured ladders must comply with OSHA, ANSI, manufacturer and job specifications. The Safety Director will have specifications. Employees will do the following:

- All ladders shall be inspected frequently and regularly. Ladders with weakened, broken, or missing steps, broken side rails or other defects shall be tagged and removed from service.
- Ladders and scaffolds shall be sufficiently strong for their intended use.
- Ladders shall not be placed in front of doors opening toward the ladder unless the door is open, locked or guarded.
- When ascending or descending ladders employees shall have both hands free and shall face the ladder.
- Only one employee shall work from a ladder at one time. If two employees are required, a second ladder shall be used.
- Ladders shall not be used as scaffold platforms unless specifically designed for that purpose.
- Boxes, chairs, etc. shall not be used for ladders.
- Portable metal ladders and other portable conductive ladders may not be used near exposed energized equipment except in very specialized situations.

Housekeeping

In order to have safe areas, they must be clean. Employees must do the following:

a. Unless otherwise specified, waste material and scrap must be put in the proper containers and removed from the job site by the contractor.
b. Work areas, passageways and stairs, in and around buildings and structures must be kept clear of debris. Construction materials should be stored in an orderly manner. Job site storage areas and walkways must be maintained free of dangerous, depressions, obstructions, and debris.
c. The entire job site should be cleaned daily and debris must be disposed of in dumpsters, or off site, in accordance with all EPA regulations.
d. Failure to maintain adequate housekeeping and clean-up will result in contractual action by the contractor.

Lockout/Tagout

The purpose is to establish a procedure to protect and prevent personnel from injury. The Safety Director is responsible for compliance and will train supervisors on proper lockout/tagout procedures, audits and/or oversee the application of the procedures, ensure corrective actions are taken when problems arise, and conduct an annual inspection/evaluation. Supervisors are responsible for training effected and authorized employees on the purpose and use of these procedures. As follows:

a. Before starting work on any circuit, machine, belting, shafting or other apparatus that is out of service, employees shall assure themselves that the apparatus is physically rendered inoperative and a standard "Danger, Do Not Operate" tag and lockout device is properly attached to the apparatus control.
b. No switch, governor, valve, throttle, or other device used to put a circuit or equipment in to service shall be operated while a "Danger, Do Not Operate" tag and lockout device are attached to it.
c. A "Danger, Do Not Operate" tag or lockout device, that has been placed for the protection of the workers shall be removed only by authorization of the person in whose name it was placed and then only after the work has been completed and workers and tools are in the clear.
d. An Authorized Employee is an employee designated to do maintenance. These employees are the only employees that may lockout or tagout a piece of equipment or machinery.
e. An Affected Employee is an employee operator who is not authorized to perform maintenance or service work on any piece of equipment. The Affected Employee will be notified that their equipment is to be shut down.
f. Each employee working on any equipment shall have their "Danger, Do Not Operate" tag, and lockout device secured to the apparatus control.
g. Before making adjustments or changing air tools, unless equipped with quick change connectors, the air shall be shut off at the air supply valve ahead of the hose. The hose shall be bled at the tools before breaking the connection.

Steps for lockout/tagout:

1. Notify all affected employees.
2. Shut off equipment by normal on/off switches.
3. Identify and isolate all energy sources.
4. Lockout/tagout all energy sources.
5. Release all stored energy.
6. Try to start the equipment.

Personal Protective Equipment

The employee is responsible for wearing appropriate personal protective equipment in operations where there is exposure to hazardous conditions, or where need is indicated to reduce hazards. The following is required:

a. Lifelines, full-body harnesses and lanyards will be used only for employee safeguarding.
b. Always wear clothing that is suitable for your trade. Proper eye and face protection must be worn whenever welding, burning, chipping, grinding, sawing, or wherever there is a possibility of foreign objects being propelled towards your face.
c. Ear protection will be provided and must be worn by those performing work in areas of excessive noise.
d. Welders must wear ear protection when there is an unusual hazard of sparks, slag, etc., entering the ears from burning, welding, or gouging operations.

e. All field and shop employees (employees performing work where heavy objects could cause toe injuries) must wear steel-toed boots.
f. Wearing rings or other jewelry is discouraged while working.
g. Shirts must be worn at all times, along with long pants.
h. Hard hats must be worn at all times.

Power Transmission Mechanical

Belts, gears, shafts, pulleys, sprockets, spindles, drums flywheels, chains, or other reciprocating, rotating, or moving parts of equipment must be guarded if such parts are exposed to contact by employees or otherwise constitute a hazard. No equipment may be used without guards in place.

Riggings and Cranes

For riggings and cranes the following applies:

a. Only trained, qualified employees are permitted to operate any rigging and crane equipment. Training includes an in-depth review of the operating characteristics and limitations of the equipment.
b. All equipment should be inspected daily. This includes inspecting all cables, sheaves, and pulleys, booms and boom angles.
c. Equipment should be shut off before any repairs are made or lubricants are applied. Any removed guards must be properly put back into place before the machine is used again.
d. Loads should not exceed equipment rated capacities.
e. Standard signals should be used to direct any moving crane. One designated person is to give signals at all times.
f. Cranes and rigging equipment are not permitted to work closer than 10 feet to any power line.
g. Employees are to stay clear of the cranes swing radius at all times. Never turn your back on any load. Cab portion of the crane should be properly blocked off (swing radius when unit is in use).
h. Loads should never be swung over any person.
i. A fire extinguisher is to be kept in the crane's cab at all times.
j. All rigging devices should have permanently affixed identification stating size, grade, rated capacity, and manufacturer.
k. Any rigging not being used should be removed from the area
l. "Shop-made" grabs, hooks, clamps, or other lifting devices are prohibited.
m. A licensed engineer must inspect all lifting beams and spreader bars to make sure that they are proper size for their capacity.
n. Slings should not be shortened by using knots, bolts, or other makes shift designs.
o. Wire rope slings should be padded to protect against damage from sharp corners.
p. Inspection records must be kept with all equipment.
q. Hard hats and proper personal protective equipment shall be worn while operating or working close to a crane.

Silica Exposure Control Plan

Silica is the second most common mineral on earth, found in the common form as “sand” and “rock”. The health hazards of silica come from breathing in the dust. If crystalline silica becomes airborne through industrial activities, exposures to fine crystalline silica dust *(specifically exposure to the size fraction that is considered to be respirable)* can lead to a disabling, sometimes fatal disease called silicosis.
Many of the activities performed in quarries and jobsites result in the creation/release of silica dust, thus exposing our employees. These activities include, but are not necessarily limited to:

1. Sweeping
2. Saw-cutting and drilling concrete
3. Limestone loading, hauling, and crushing operations
4. Excavating
5. Concrete paving

Bayer Construction is committed to providing a safe and healthy workplace to our employees, recognizing the right of workers to work in a safe and healthy work environment and ensuring that Company activities do not adversely affect the health and safety of any other persons. This commitment includes ensuring every reasonable precaution is taken to protect our employees (and others) from the adverse health effects associated with exposure to silica.

Exposure Control Plan (ECP)

The employee is responsible for wearing appropriate personal protective equipment (PPE) in operations where there is exposure to any hazardous conditions exist, or where need is indicated to reduce hazards. Regarding the exposure to silica, the following considerations apply:

1. Ensure that all tools, equipment, PPE and materials *(including water)* necessary to implement the ECP are available *(and in good working order)* prior to allowing work activities to commence.
2. Ensure that all workers *(under the supervisor’s direction and control)* have received the necessary education and training regarding the dangers of silica dust.
3. Use the assigned protective equipment in an effective and safe manner.
4. Work in accordance with the project/task specific ECP.
5. As appropriate, post warning signs around silica dust generating activities.
6. As appropriate, work activities will be scheduled to minimize the silica related effect on, and from, unprotected workers or bystanders.
7. Whenever possible, concrete saw-cutting and drilling will be completed when the concrete is wet *(thus dust release will be significantly reduced).*
8. Report *(immediately)* to the supervisor or safety manager, any hazards *(i.e. unsafe conditions, unsafe acts, improperly operating equipment, etc.).*

Tools

All tools, regardless of ownership, shall be of an approved type and always maintained in good condition. Do the following:

a. Repair all damaged or worn tools promptly. Temporary and makeshift repairs are prohibited. Tools that can't be properly repaired should be discarded immediately. The contractor reserves the right to require any sub-contractor to stop work or using any defective or improperly used tool.
b. The sub-contractor will supply all required tools unless otherwise specified. All equipment must conform to OSHA Safety and Health Regulations for the Construction Part 1926.
c. Power tools should not be used if safety equipment has been removed.
d. Employees using tools that cause objects to be thrown should wear personal protective gear, including proper eye and hearing protection.
e. Gas powered tools should not be used in unventilated areas and gas should be dispensed from U.I. approved cans only. All gas-powered tools must be turned off before being refueled.
f. Portable grinders must have hood-type guards and side enclosures that cover the spindle and at least 50% of the wheel. All wheels should be inspected regularly for fractures, etc. Defects should be promptly reported to the Safety Director.
g. Bench grinders should have deflector shields and side cover guards. Tool rests should have a maximum clearance of 1/8" from the wheel.
h. Air-supply lines should be inspected regularly and maintained in good condition.
i. To prevent "whipping" in the event of hose separation or failure, air sources supplying hoses should be protected with an excess flow valve. Completely bleed all air from tools before disconnecting them.
j. For cleaning purposes, the pressure of compressed air used should be 30 psi or less and hose extensions should always be used.
k. Only trained employees are to use OSHA specified powder-actuated tools.
l. Trained employees should inspect all power-actuated tools on a daily basis. Any tool not found to be in proper working condition must immediately be removed from service.
m. Any area where a powder-actuated tool is used must have a warning sign posted.
n. All power-actuated tools should be of the low velocity, cushioned pistol grip, and piston type design.
o. Power-actuated tools should **not** be used in areas where hazardous ignitable dust, gases, or liquids are present.
p. All maintenance work on power-actuated tools must be performed according to manufacturer specifications and must be done by qualified persons only.
q. Do not raise or lower power tools by their electrical cord or pneumatic line.
r. Powder-actuated tools should be locked-up when not in use to prevent unauthorized persons from using them.

Vehicle Safety

Check all vehicles in use at beginning of each shift to assure all parts, equipment and accessories affecting safe operation are in proper operating condition and free from defects. All defects shall be corrected before placing vehicle in service.

No employee shall use any motor vehicles, having an obstructed view to the rear unless: the vehicle has a reverse signal alarm distinguishable from the surrounding noise level, or vehicle is backed up only when an observer signals it is safe to do so.

Welding and Cutting

Proper precautions for fire prevention must be taken in areas where welding or other "hot work" is being done. The following must be followed:

a. No welding, cutting or heating will be done where the application of flammable paints, or presence of other flammable compounds, or heavy dust concentrations, creates a fire hazard. Equip torches with anti-flashback devices.
b. Arc welding and cutting operations will be shielded by noncombustible or flameproof shields to protect employees from direct arc rays.
c. When electrode holders are left unattended, electrodes will be removed and holder will be placed or protected so they cannot make electrical contact. All arc welding and cutting cables will be completely insulated. There will be no repairs or splices within 10 feet of electrode holder, except where splices are insulated equal to the insulation of the cable. Defective cables will be repaired or replaced.
d. Fuel gas and oxygen hoses must be easily distinguishable and not interchangeable. Inspect hoses at beginning of each shift and repair or replace if defective.
e. General mechanical or local exhaust ventilation or air line respirators will be provided, as required, when welding, cutting or heating hazardous materials or in confined spaces. Always wear approved tinted eye protection when welding or when in areas where welding is being done.

Work Zone Safety

Work zone protection is the adequate safeguarding of people and equipment. To accomplish this, employees must:

a. By the use of good information and protective devices. The use of these devices must be coupled with proper planning, design, installation, inspection and good common sense. It is of the utmost importance that the work zone be properly identified and that warning devices clearly convey the message to the traveling public well in advance of arrival at the work zone.
b. Proper work zone protection shall be planed to ensure the safety and protection of the public, the employee, and the equipment
c. Employees in work zones areas must wear visible clothing, so they will be highly visible to the public.
d. All work zones must comply with the MUTCD, "Manual on Uniform Traffic Control Devices" located in the supervisor's office.