



May 15, 2018

TO: Ms. FAY W. APIL
OIC, Office of Regional Director
Department of Environmental and Natural Resources
Cordillera Administrative Region
80 Diego Silang St. 2600 Baguio City

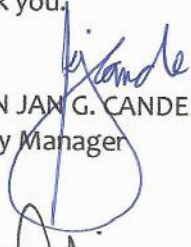
THRU: MR. FELIZARDO A. GACAD, JR.
Chief, Mine Safety, Environment and Social Development Division

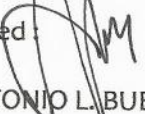
Madam/ Sir:

We would like to furnish you a copy of the amended Safety Manual guided with the Standard Operating Procedures applicable in different working areas of the mine.

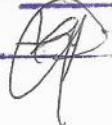
For your information and approval.

Thank you,


KEVIN JAN G. CANDELARIO
Safety Manager

Noted: 
ANTONIO L. BUENA VISTA
AVP/Resident Manager

**MGB - CAR
RECEIVED**

DATE 16.2018 TIME 04:07
CODE 1434 BY 



CERTIFIED ISO 14001:2015 Environmental Management System

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SECTION 1

A. Responsibilities of the Manager/Superintendent

1. Strictly enforce all safety rules and regulations embodied in this Safety Manual.
2. Plan and arrange all processes and operations with careful attention to safety.
3. Safeguard machinery and place no machinery or equipment in operation unless full information and instruction have been given for its safe operation.
4. Maintain a system of inspection to detect and correct hazards of the operation.
5. Initiate and maintain a safety-conscious supervision.
6. Train, educate and require employees to follow safe working methods.
7. Immediately investigate or initiate the investigation of any incident as well as those unsafe and unsanitary conditions with the best solutions to prevent any recurrence.
8. Organize and maintain a safety council and committee to handle the safety aspects of the operation in consonance with the Company's Safety Department program.
9. Provide bulletin boards to be displayed on conspicuous places accessible to employees for the posting of all notices and information regarding safety and sanitation.
10. Inform and coordinate with all other departments concerning any safety hazard that can or may affect and endanger the latter's job and operation.

B. Responsibilities of Supervisor (Foreman/Shift boss)

The supervisor shall, aside from his regular and routinary duties:

1. Know, understand, apply and enforce all safety rules, regulations and precautionary measures pertaining to his work and that of his subordinates.
2. Be held responsible for the safety of their men and equipment used in his area of responsibility and motivate them to perform their assigned work safely, efficiently and productively.
3. Account for the number of men working under his supervision at the start and end of each shift.
4. Not assign any man to work alone underground, in stopes, raises and other working paces where he cannot be seen or heard or cannot get proper supervision.
5. Not a person to work alone in an isolated area and/or hazardous area, where he cannot be seen, heard or extended any help in case of accident.
6. Set good example for his men in observing safety, housekeeping and sanitation on the job.
7. Provide, implement or cause the provision of the proper safety appliances or equipment required in the safe and efficient performances of any job.
8. Not allow any worker to report for work or do his job if found to be physically and/or mentally unfit.

9. Investigate thoroughly and make a report of any incident that happened during the shift; and if the incident involved an injury of a workman, accomplish the supervisors accident report form and submit to the Safety Department within 24-hours from the time of occurrence.
10. Render first aid treatment if qualified to an injured workman.
11. Assist a safety representative(s) in his/their safety inspection and investigation work.
12. Take immediate steps to correct or recommend the correction of all detected or reported unsafe and unsanitary conditions or practices after making a proper and thorough investigation of such conditions.
13. Implement all administrative and safety memoranda issued and approved by designated authorities.
14. Attend Sectional or Departmental safety meetings and participate actively in the formulation of safety procedures and policies.
15. Visit all working places under his supervision at least once per shift; unless his presence is extremely needed in certain area.
16. Not to go home at the end of the shift under all the men under his supervision have come out of the mine.
17. Report to his supervisor any hazard that he is cognizant of in another department.
18. Immediately report discovery of fire and attend to the safety of his men.
19. Not tolerate a false accident report.
20. Give proper action and a report of the action taken on Safety Investigative Memo issued by Safety Department.
21. Responsible for clear instructions and training of men (especially new ones) under his supervision.
22. Always confer with outgoing supervisors on details regarding their job.

C. Responsibilities of Contractors

1. All contractors are required to know, understand, apply and enforce all safety rule, regulations and precautions pertaining to their work.
2. All contractors/leadmen, or supervisors of men are responsible for the safety of their men.
3. It is forbidden for a contractor/leadmen to allow men to work without the proper safety equipment i.e. battery lamp, skull guard, boots, pinch bar, chute bar, pick, shovel, safety ropes, stable platform, overhead protection, hammer and others without which expose the employee to a potential hazard.
4. It is the duty of each contractor/leadman/capataz to check in and check-off the men under his supervision.
5. A leadman/supervisor must take full responsibility of motivating his subordinates to perform his assigned work with efficiency, safety, and productivity.
6. Supervisors and Leadman are responsible for the cleanliness, good housekeeping and sanitary conditions of the working places under their supervision.

7. The working places under the charge of a supervisor/leadman must be visited twice per shift, unless his presence is extremely needed in a certain working place whereby the boss/ capataz must visit each working place at least once per shift.
8. No person shall be allowed to work underground alone without proper supervision in active stope, raise, heading, rehab work, drift timbering work and isolated places.
9. A supervisor/leadman must report to the Mine Head Supervisor any hazard that he is cognizant of in another department.
10. In case of fires, the first duty of the supervisor or capataz is to report it at once and then attend to the safety of his men.
11. A leadman and/or a Safety Engineer/ contractor must make a preliminary accident report of any injury sustained by his workman resulting from the performance of his work. The report must be filed with the Safety Department within eight hours after the accident occurred
12. A false accident report is not tolerated.
13. Contractors, supervisors and leadman must attend safety meetings when required to do so.
14. All safety inspection memorandums issued by the Safety Department and approved by the Mine Manager, must be given proper action and a report of the action taken must be filed with the Safety Department within three (3) days after the memorandum has been issued.

D. Responsibilities of Employees.

- **RULE 1.** The employee shall cooperate in the promotion of safety and Sanitation by:
 - a. Faithfully observing all rules and notices pertaining thereto.
 - b. Promptly reporting all accidents of whatever nature or description to the corresponding shift boss, foremen or superintendent or to those in direct charge of the work.
 - c. Promptly reporting all unsafe and unsanitary conditions to the Operation Manager and Contractor or their delegated representatives and to the Safety Inspector of the Company.
 - d. Assisting his fellow workman in avoiding accidents and warning them of dangerous conditions.
 - e. Reporting of duty, well-rested, sober and in such condition as to enable him to use all ordinary precautions to avoid accidents.
 - f. Submitting himself to such physical examination as the employer or contractor may demand prior to and during employment and to vaccination or any other treatment recommended by the company's physicians.
 - g. Following implicitly the instructions by the operating staff of the Company or Contractor and the Safety Department representatives.

- **RULE 2.** An employee who sustains an injury while performing his regular duties with the company, no matter how slight, must immediately report his injury to his supervisor or leadman and secure an "Injury Slip" which must be presented immediately to the company

hospital/dispensary for medical treatment. If the employee is unable to see his supervisor or leadman then he reports to the portal/gate guard who shall notify immediately the Department Manager concerned and/or the Safety Department.

- **RULE 3.** If the injured workman is unable to report for treatment, his fellow workman shall immediately get in touch with the nearest first aid attendant or any supervisor who shall in turn decide whether the injured may be moved or not.
- **RULE 4.** An employee shall not enter areas known to be dangerous or pass through danger signals without proper authority. Such signals are placed for the workmen's protection and must be respected.
- **RULE 5.** No nuisance shall be committed anywhere in the works.
 - a. Latrine and other conveniences must be used.
 - b. Garbage, kitchen water and other water waste must be deposited in proper receptacles provided for this purpose.
 - c. Inflammable materials must be stored or kept properly to minimize fire hazards

- **RULE 6.** An employee known to be afflicted with an infectious and/ or communicable disease which may jeopardize the health of other workmen shall not report to work or shall not be allowed to work.
- **RULE 7.** An employee shall not report to work or shall not be permitted to enter any mine plant, mine workings, mills and smelters while under the influence of intoxicating liquor or drugs and no employee shall carry intoxicating liquor or drugs into the same place.
- **RULE 8.** An employee shall not report to work or be allowed to work underground unless physically able to discharge the duties assigned to him.
- **RULE 9.** No loafing while on duty including other activities not related to work, or engaging in unruly behavior or over-staying in non-designated working place.
- **RULE 10.** An employee shall not use an assumed name, or another employee's chapa number while working for this company.
- **RULE 11.** An employee shall not work alone or be assigned to work alone in an isolated place where he cannot be heard or seen in case of accident, that is, in such places where no immediate or adequate aid can be extended him in case of accident.
- **RULE 12.** An employee in a working area shall not fight, engage in horseplay, crowd or jostle with others or act in any disorderly manner.
- **RULE 13.** An employee shall not handle electric wires or connections or electrical apparatus of any kind, or enter an electrical machine room or electrical station, except when duly authorized.
- **RULE 14.** An employee who shall be injured three (3) times in a period of four (4) months due to his carelessness, negligence or in violation of any safety rules and regulations of this company.
- **RULE 15.** Every employee must make proper use of all safeguard, safety devices and other appliances furnished for his protection or the protection of others, and shall obey all safety instructions pertaining to his work.

- **RULE 16.** An employee shall not interfere with, remove, displace, damage or destroy any safety devices or other appliances furnished for his protection or the protection of others, or interfere with any method or process adopted to minimize hazards, unless he is ordered to do so by the management or his responsible boss.
- **RULE 17.** Every employee must immediately report to his boss any defect of any appliance or equipment that he may discover in the plant, mine shop or in his department.
- **RULE 18.** Safety belt or rope must be worn where there is danger of slipping or falling.
- **RULE 19.** Materials and equipment should be stored in such a manner as not to cause a stumbling hazard or to prevent them from falling.
- **RULE 20.** Employees who work on a scaffold of any description must personally see to it that the supports are properly erected and in safe conditions.
- **RULE 21.** Temporary scaffolds must be torn down and material must be piled as soon as the job is completed.
- **RULE 22.** Tools of any kind or other materials must not be left on scaffolds at the end of the shift.
- **RULE 23.** Materials of any kind must not be thrown down to a floor or platform until after a warning has been given and all persons are in safe places.
- **RULE 24.** Workers must not leave temporary openings into which people may walk or fall into unless closely guarded or covered.
- **RULE 25.** Workers must not walk under suspended loads.
- **RULE 26.** Assistance should be obtained when carrying heavy equipment or materials. Execute proper position before attempting to lift a heavy load.
- **RULE 27.** Notice or warning should be given to fellow workmen before materials being carried by more than one are released.
- **RULE 28.** Steps, handrails, grab irons, and floors in plants or shops must be kept free from grease, wire cuttings and debris.
- **RULE 29.** Always examine rope and block before using them. Do not use equipment too light for the work to be done. Do not take hold of the rope near block as your fingers may be drawn into the block and get injured.
- **RULE 30.** Do not use a poor ladder – find a good, safe one. Use care in placing ladders before using them. If there is any danger of a ladder slipping, have someone hold it. Never try to climb a ladder without the free use of both hands. If materials are to be handled, use a rope.
- **RULE 31.** Workers must not work directly above other workers except in case of absolute necessity in which case great care must be taken not to drop any material. When you have to work above others, give them ample warning.
- **RULE 32.** Notify all others who might be endangered by the work you are doing.
- **RULE 33.** Watch out for and respect all danger signs.
- **RULE 34.** Do not use tools that are blunt, battered or mushroomed on head. Return defective tools to the tool bodega for repair.
- **RULE 35.** Do not attempt to make repairs on electrical equipment; report any repairs needed to your supervisor or an electrician on duty.

- **RULE 36.** Unattended shop fires must be quenched with water before leaving the shop.
- **RULE 37.** Repairs or adjustments should not be made on any machinery until the power has been cut off and the machinery blocked securely against all motion.
- **RULE 38.** When machine guards are removed for oiling or repairs or for any other purpose, they should be placed back before the machine is put again in operation.
- **RULE 39.** Machines and apparatus must not be operated without proper authorization.
- **RULE 40.** An employee shall not use equipment with which he is unfamiliar or uninstructed.
- **RULE 41.** Welding goggles must be worn while using gas welding or electric welding equipment.
- **RULE 42.** Gas and acetylene tanks must not be dropped, bumped or otherwise roughly handled. Precautions should be taken to prevent gas cylinders from falling over when standing on end.
- **RULE 43.** Power tools such as emery wheel, saws, etc., should not be used by any workman without first obtaining permission from the supervisor concerned.
- **RULE 44.** When doing any work where is danger of flying particles that might injure the eyes, use goggles.
- **RULE 45.** Grease and lubricating compounds are not permitted to accumulate on the floor or compartment housing the machinery.
- **RULE 46.** Keep all machinery clean. Do not adjust, clean or repair machinery while it is in motion or while the power is applied.
- **RULE 47.** When using gasoline or cutting and welding torches, be careful not to let flame come in contact with flammable materials. Be especially careful about this when cutting iron where wooden supports are used. Do not leave oily rags or waste lying around that might start combustion.
- **RULE 48.** A machine operator is responsible for the good condition of his machine or for the part of it in his care, and for the floor area above his machine.
- **RULE 49.** Before starting a machine, operators must see to it that all tools that may have been used are removed; that all working parts of the machine are free to move without damage; that nobody is in a position to be injured when the machine is set in motion.
- **RULE 50.** Horseplay with compressed air is absolutely prohibited.

ELECTRICAL WORK

- **RULE 51.** All Employees must not store combustibile materials or allow them to accumulate under power lines.
- **RULE 52.** Electricians or employees must not use wires or other conducting materials as a substitute for properly designed fuses.
- **RULE 53.** Electricians must provide lighting circuit with adequate fuses
- **RULE 54.** Electricians must support lighting wire with suitable insulators.
- **RULE 55.** No work should be done on electrical circuits an apparatus when current is on, unless conditions make it absolutely necessary in which case adequate precaution must be taken.

Precautions for working on live circuits must include insulated foot supports, such as rubber boots, dry ladders, or insulated platforms, approved rubber gloves and ground.

- **RULE 56.** Switches on the line or circuits that have been disconnected to make repairs or adjustments should be locked or tied and a placard posted "DANGER-MEN WORKING ON THIS CIRCUIT- DO NOT CLOSE." Only the employee opening or ordering the circuit to be opened should close the switch.
- **RULE 57.** A circuit switch should not be closed unless it is positively known that no one is working on the circuit.
- **RULE 58.** Fallen high-tension-wires must not be left unguarded unless it is necessary to do so.
- **RULE 59.** Splicing of power cables while the power is on is prohibited.
- **RULE 60.** Linemen must wear safety belts fastened around the pole and not on arms or braces.

CARPENTRY

- **RULE 61.** Carpenters who are authorized to operate mechanical saws planers must wear goggles when operating them.
- **RULE 62.** Do not wear loose or baggy clothing and sport long hair when working around machinery.
- **RULE 63.** When working around machinery do not wear gauntlet gloves. When work requires gloves, use the proper gloves for the work. Gloves should fit the wrist snugly.

TRANSPORT OPERATORS

- **RULE 64.** Drivers must not allow unauthorized riders on company vehicles
- **RULE 65.** Fast or reckless driving is not permitted.
- **RULE 66.** No persons shall drive a motor vehicle in such manner as to obstruct or impede the passage of vehicular or pedestrian traffic.
- **RULE 67.** A person operating a vehicle shall not allow more passengers, freight or cargo in his vehicle than its registered capacity.
- **RULE 68.** A person shall not drive a motor vehicle while under the influence of liquor or any intoxicating drinks or drugs.
- **RULE 69.** A driver shall not permit any person to ride on the running board, step board or mud guard, except when making repairs or adjustments on the motor.
- **RULE 70.** Drivers must observe and obey all traffic signs
- **RULE 71.** A red flag will be displayed at the projecting end of a vehicle if the load of such vehicle extends more than one meter beyond the bed or body thereof. In the absence of a red flag, white cloth may be used.
- **RULE 72.** No person shall hang onto or ride on the outside or rear of any vehicle and no driver shall knowingly permit any person to hang onto his vehicle.
- **RULE 73.** Drivers will not allow any person or passengers to ride on the hood or on the top of any vehicle. Also true for Dozer and Loader operators.

- **RULE 74.** Police, ambulance and fire truck shall have right-of-way when responding to emergency calls.
- **RULE 75.** In case of accident, the driver concerned shall not leave the scene of the accident without aiding the victim nor shall he move his vehicle unless he is in danger of being seriously harmed by persons by reason of the accident, or if he is going to summon a physician or nurse to aid the victim.
- **RULE 76.** All vehicles and heavy equipment shall be provided with backing horn.

E. Responsibilities of Safety Engineers/Inspectors

The safety Engineer/Safety Inspector shall:

1. Make routine inspection of the mine and its premises.
2. Make a daily report of inspection and inform the department heads concerned the places inspected as to ventilation, sanitation, unsafe acts/conditions and working procedures.
3. Receive the oral and written reports of employees about unsafe and unhealthy conditions and recommend to management for remedial measures.
4. Instruct/train employees of accident prevention, first aid, and sanitation.
5. Initiate the organization of safety committees and conduct meetings for the promotion of safety and sanitation.
6. Investigate and report all mine accidents and promulgate ways and means of preventing their recurrence.
7. Keep a record of all accidents and safety inspection reports.
8. Institute and formulate safety program for the company.
9. Formulate safety and disaster plan.

SECTION 2

SPECIFIC RULES FOR UNDERGROUND

- **RULE 1.** Safety during drilling and blasting a round:
 - a. Do not drill in a bootleg or sockets
 - b. Do not drill beside another borehole loaded with explosive.
 - c. Use a wooden tamping stick when loading blast holes.
 - d. Return to a working place thirty (30) minutes after blasting or when smoke has cleared.
 - e. Start drilling only after misfires have been removed, cleared or reblasted.
 - f. Guard all access to the working place before blasting.

- g. Bar down at regular interval while drilling a blast round to remove rock that may have loosened in the process of drilling.
- h. Follow strictly blasting time for the shift.

- **RULE 2.** Dry drilling is not allowed underground. In cases where unavailability of water, drillers must use proper PPE like respirators and goggles.
- **RULE 3.** When first entering into a working place, the ground should be examined for any loose ground. All loose pieces of rock must be barred down before the work is started. The walls and back of such working place must be tested for loose rocks several times during the shift.
- **RULE 4.** Under no circumstances shall an employee sleep in his working place or any other working places.
- **RULE 5.** Safety non-metallic type hats as approved by the Safety Council of the Department of Labor or Bureau of Mines must be worn by all persons going or working underground
- **RULE 6.** All employees must avoid loitering in an electrical installation.
- **RULE 7.** Avoid hanging clothing or lunch buckets on or near electrical switches, circuit breakers and other electrical installations.
- **RULE 8.** Avoid placing or piling timbers, tools or equipment near electrical equipment or any electrical installations.
- **RULE 9.** All materials shall be piled neatly and at a safe distance from any track or passageway so as not to impede or endanger the traffic.
- **RULE 10.** All openings on the floor must be either covered or protected to prevent persons from falling into them accidentally.
- **RULE 11.** Oil, waste, old timber, or refuse of any kind shall not be accumulated underground.
- **RULE 12.** Miners and timber man or other workmen are responsible for the safety of the roof and walls in their working places. They shall not permit anyone to work under such a place until it has been made safe.
- **RULE 13.** When laborers or men are working one above the other or in any position where they might be injured by falling rocks or debris of any kind, they must inform one another and the men must be in the clear before the work is to be started.
- **RULE 14.** No flooring, roofing, matting, lagging, or timbering of any kind whatsoever shall be removed which will make a dangerous opening, except when the proper precautions of guarding the opening are taken.
- **RULE 15.** All signs are placed for your protection. Do not mark, deface or destroy them. Employees must watch for and obey every warning signal or sign.
- **RULE 16.** New inexperienced men should always request help when in doubt from supervisors or experienced fellow workers.
- **RULE 17.** Never sit down or rest along a mainline.
- **RULE 18.** No employee shall be allowed to carry firearms or deadly weapon underground and other industrial places except security department personnel and/or other authorized personnel.

- **RULE 19.** Any electric lines which are loose or hanging dangerously must be reported immediately. Do not attempt to repair electrical equipment yourself unless authorized.
- **RULE 20.** Never turn on any electricity, compressed air, or water or set in motion any piece of machinery without first seeing that no one is in a position to be injured or cause damage to an equipment or apparatus.
- **RULE 21.** Keep your passageway clean. Pile all materials neatly and at a safe distance from any track or passageway.
- **RULE 22.** Never load timber or other materials in a car that it projects over the sides or tops.
- **RULE 23.** Never take a shortcut over or through a dangerous place. Go directly to your working place by the usual safe route.
- **RULE 24.** Never carry tools or steel bars on your shoulders where there is danger from power lines or where it may endanger your companions.
- **RULE 25.** No person shall be permitted to ride as passengers on any moving vehicles or equipment or any other form of conveyance except those vehicles designed for transportation of personnel.
- **RULE 26.** Never try to pass a moving car or train, instead get into a place of safety and stand still until it has passed by.
- **RULE 27.** No dangerous opening or workplace should be left unguarded or unprotected.
- **RULE 28.** Do not cross a raise or grizzly through which muck is running.
- **RULE 29.** All projecting nails shall be bent over or removed from timber lying or installed on working places or passageway.
- **RULE 30.** Do not approach any dynamite bodega with an open flame.
- **RULE 31.** Before and after working in main haulage drift, the haulage supervisor must be notified, "danger - men working on line" sign in both direction of the drift, not less than 60 meters from the working place.
- **RULE 32.** It is prohibited to throw drill steels, tools, timbers, or any material down a manway or from a raise. They shall be lowered with the use of rope.
- **RULE 33.** All platforms or staggers, whether in or over raises, sinking, etc. shall be constructed properly so as to eliminate any possibility of collapse.
- **RULE 34.** When using a cutting torch in close proximity to lumber or other combustibles, all necessary precautions shall be taken against fires. Extinguishers shall always be available nearby.
- **RULE 35.** Drill steels shall not be used as staggers, leverage as pinch bars or as chute bars. Always use the right tool at the right time and place.
- **RULE 36.** No person is allowed to get on or off any motor vehicle, train or other forms of conveyance while still in motion.
- **RULE 37.** Personal Protective Equipment (PPE) such as safety belt, life-lines, goggles, face shield, mask, gloves, respirator, hard hat, safety shoes or boots. etc. shall be worn when required by the job.
- **RULE 38.** No person other than company employee on duty or contract member/miner on duty shall be allowed underground without permission from the Mine Manager or his duly

authorized representative. Visitors must sign a waiver and must at all times be accompanied by an authorized person. A maximum of five (5) visitors shall have at least one (1) guide.

- **RULE 39.** When carrying tools through a manway, carry them in a sack or securely tied.
- **RULE 40.** Do not pass between cars in a train. Walk around the train or wait until it pulls out of the way.
- **RULE 41.** Do not lift or move a load that is too heavy. Seek help when necessary.
- **RULE 42.** Help a new employee to familiarize himself with his new place of work.
- **RULE 43.** All worked-out, abandoned, dangerous places should be barricaded or have "danger" signs posted at the entrance.
- **RULE 44.** If for any cause the necessary ground supports are not available, and the working place presents hazard, the work at this place shall cease until the necessary support is applied.

SECTION 3

SPECIFIC RULES FOR MINERS, MUCKERS AND TRAMMERS

- **RULE 1.** The miner is responsible for the safety of his working place. He must take special interest in the safety of his muckers and trammers who should not be permitted to perform any work until the place is made safe. He should take particular interest in helping and assisting the new man. Remember, the miner who succeeds is the miner who takes an interest in his work and teaches his fellow workers the art of working safely and efficiently.
- **RULE 2.** Make sure your working place is well ventilated after blasting. If necessary, use compressed air to blow out gases and dynamite smoke.
- **RULE 3.** Blasted faces shall be examined carefully for missed holes. If you find any, report same at once to the leadman or company supervisor for instructions.
- **RULE 4.** Sound your roof frequently. "BAR DOWN" use a pointed bar (pinch bar) in barring down , and stand on firm footing under safe ground or timber.
- **RULE 5.** Drilling must not be done in or near old holes, bootlegs or bottoms, as some explosives may remain at the bottom or crevices of the hole. Look out for dynamites in the muck pile.
- **RULE 6.** All drilling underground must be wet. Always use water. Should conditions ever arise when it is impossible to get water, you must wear respirators and notify your leadman.
- **RULE 7.** Drilling must not be done in or near old holes, bootlegs or bottoms, as some explosives may remain at the bottom or crevices of the hole. Look out for dynamites in the muck pile.
- **RULE 8.** Do not leave obstructions behind you. You may want to leave in a hurry and need a clear road.
- **RULE 9.** Never drill near a live wire. Do not hang your tools or lunch baskets on electrical wires. Do not sit on mine tracks.
- **RULE 10.** Be careful for objects falling from the roof when taking down your drilling machine. The roof may have been jarred loose by drilling.

- **RULE 11.** It is forbidden to throw or drop drill steels, tools, timbers or any materials down a manway. They must be lowered from platform to platform or securely tied when lowered.
- **RULE 12.** Each miner must provide himself with a small pocket knife with a blade not more than three (3) inches long.
- **RULE 13.** Exercise caution when using knife. Never cut towards yourself; always cut away from your body.
- **RULE 14.** When loading holes, use only wooden tamping sticks cut square on the ends. Never use a metal bar or pipe.
- **RULE 15.** A miner is not allowed to blast alone under any condition. They must have at least two good lamps available before starting to spit.
- **RULE 16.** Loose, unused or the excess of explosives, caps or fuse must be promptly returned to the explosive bodega by the person who drew them out.
- **RULE 17.** Do not blast unless you are sure that all approaches to the place are guarded to prevent anyone from getting near the blast.
- **RULE 18.** Do not turn on electricity, compressed air, water or set in motion any machinery, or throw down materials, without first verifying that there are no persons who are in position to be injured by your act.
- **RULE 19.** When two(2) faces are within 20 feet of connection, drilling should be on one face only. When blasting, both faces of connection should be thoroughly guarded.
- **RULE 20.** Always sprinkle with water the face and muck pile after blasting to suppress the dust and clear the smoke caused by blasting.
- **RULE 21.** Do not lift an object too heavy for you. Ask your fellow workman to help you.
- **RULE 22.** Miners or workmen must examine timbers and ladders hanging loosely or broken. If conditions are such that you cannot make your working safe, you must immediately report unsafe condition to your leadman/supervisor.
- **RULE 23.** Faulty tools must not be used under any circumstances. Should tools become faulty while in use they must be exchanged for good tools at once.
- **RULE 24.** Never enter any place where a light will not burn. Don't take short cuts over or through dangerous places. Safety first, think before you act and don't take any chances. "WATCH FOR DANGER SIGNALS."
- **RULE 25.** Keep the mine clean. Don't drink mine except from approved faucets or sources.
- **RULE 26.** Avoid accidents from falling rocks by keeping your workplace well barred down.
- **RULE 27.** Never stand on loose muck over a raise or chute.
- **RULE 28.** No person shall stand near any car being loaded at a chute unless employed there.
- **RULE 29.** In pulling a chute, trammers must not stand in front but to the side of the chute. Do not stand on a car while barring chute.
- **RULE 30.** Trammers are not allowed to empty chute completely.
- **RULE 31.** Trammers must always push the car and never attempt to pull it. When blocking a car, use wooden wedges.
- **RULE 32.** Trammers must avoid placing their hands on top of the cars when pushing under chutes.

- **RULE 33.** On haulage levels, be sure the track is clear before pushing a car over a crossing.
- **RULE 34.** All switches on haulage drift must be lined for the main haulage drift at all times.
- **RULE 35.** Keep all covers over chutes closed except when you are dumping cars.
- **RULE 36.** In loading timber or other materials on a car, arrange them so they don't project over the side and interfere with your safe passage.

SECTION 4

SPECIFIC RULES GOVERNING UNDERGROUND MOBILE EQUIPMENT

General Safety Instructions

Incorrect or improper use of these equipment can cause injury or death. Know the rules and laws of the area that you will be operating in. Do not operate unless you have been trained in safe and proper use.

1. Only trained authorized operators shall operate the machine.
2. Do not use the machine for anything other than its intended purpose.
3. Drive carefully, observe traffic rules and be in full control at all times.
4. Do not allow unauthorized riders in or on the equipment.
5. Report any damage or faulty operation immediately. Do not operate the machine until corrected.
6. Never service or make adjustments to the machine when its moving.
7. On diesel units, make sure the machines are used in areas with adequate ventilation.
8. Know the area of operation and identify possible hazards that should be corrected or avoided prior to entering the area.
9. Do not drive close to ditches, holes, etc. Walk around the new job site and look for hazards. Know the haul road that you will be using.

Load Haul Dump (LHD)

- **RULE 1.** Never use the steering control lever as a hand hold. Steering may be operational even with the electric motor stopped.
- **RULE 2.** NEVER start the machine unless:
 - a. Area near the machine is clear
 - b. All covers are installed.
 - c. The park break is set
 - d. The hydrostatic transmission is NEUTRAL
 - e. You know how to shut it down.

- **RULE 3.** ALWAYS sound the horn before starting the motor to alert anyone who might be around the machine.
- **RULE 4.** ALWAYS keep hands, arms, head, etc. inside the operator's compartment.
- **RULE 5.** ALWAYS travel at low speeds in congested areas. Go slowly around corners and sound the horn frequently in areas of limited visibility.
- **RULE 6.** Always travel up or down grades with the bucket end pointing downhill. The bucket could be used to help stop the machine in case of an emergency.
- **RULE 7.** When parking on a grade, turn the machine in a bank or rib, or block the wheels.
- **RULE 8.** ALWAYS tag the steering control lever any time any machine component has been disconnected to alert other personnel.
- **RULE 9.** DO NOT stand in the center pivot area between the frames. When working in this area, and transporting or lifting the machine, the frame lock must be connected.
- **RULE 10.** Prevent potential fire hazards at all times by:
 - a. Keeping fire extinguisher in perfect working order
 - b. Keeping the machine clean of dirt and oil
 - c. Keeping all electrical wiring and components in good working order
 - d. ALWAYS TURN OFF the main circuit breaker lever on the control box when machine is not being used.
- **RULE 11.** All electrical parts must be kept in a safe condition. There must be no openings into the enclosure of the high voltage parts.

SECTION 5

GENERAL RULES FOR DRILLING

Air Leg Drilling/ Hand drill

- **RULE 1.** Drilling must not be carried out in any face or bench until it has been washed down and the butts washed, cleared and examined for misfires. Special attention should be given to lifters, with dirt scraped away from the toe of the face.
- **RULE 2.** Do not use a drilling machine unless you have been instructed in its operation.
- **RULE 3.** Under no circumstances must a hole be drilled into a butt on remaining portion of a hole previously exploded (bootlegs).
- **RULE 4.** Working areas must be thoroughly barred down prior to commencement of drilling. If uncertain of ground conditions, consult supervisor/leadman.
- **RULE 5.** Ear protection must be worn, when operating or in the area of rock drill.
- **RULE 6.** No connection between workings can be made until a thorough examination for misfires has been made in the working towards which the active face or headings is advancing.
- **RULE 7.** No person is to drill a face that contains a charged hole.

SECTION 6

SPECIFIC RULES REGARDING STOPES

- **RULE 1.** Backs and sides of stopes must be inspected frequently and loose ground must be scaled down immediately or properly supported.
- **RULE 2.** Timbers and stulls must be tested frequently and kept tight at all times. When setting stulls, place them at right angles with the dip of the vein inclined a little on the upper side.
- **RULE 3.** Never place a stull under rocks which needs barring down
- **RULE 4.** Ladders must be securely fastened and must extend at least two (2) feet above the platform.
- **RULE 5.** An employee should not attempt to go up a ladder in a raise or stope without first signaling or shouting a warning to persons above them. Listen for an answer and don't start to climb until answer is given.
- **RULE 6.** Guard rails must be placed at all open man ways and at all openings in stope floors where planks are removed.
- **RULE 7.** Grizzlies must be kept in place and openings between grizzlies must not exceed specified distance.
- **RULE 8.** Men working on grizzlies must use safety rope and platform.
- **RULE 9.** When drilling, stand in proper position so that you will not lose your balance should the drill steel break.

SECTION 7

SPECIFIC RULES REGARDING RAISES

- **RULE 1.** Air hose end must be tied to top divider so that air can be controlled from a valve at foot of raise for blowing out gas.
- **RULE 2.** Ventilate all raises with compressed air or blower after each blast before the men enter.
- **RULE 3.** Special safety precautions must be taken when a raise is within twenty (20) feet of connection to a level. These precautions must be taken until the raise has been connected.
- **RULE 4.** Always call or signal to anyone who might be above before going up a raise. Listen for an answer. Don't start climbing until answer is given.
- **RULE 5.** When at the top of the raise or man ways, answer a call or signal from anyone below and stop any work until they reach the top.
- **RULE 6.** When going up or down a ladder, always face it so that you can use both hands on the ladder as well as your feet.
- **RULE 7.** Do not follow a man up a ladder who is carrying tools, timber, or drill steel.
- **RULE 8.** Ladders in man ways must be staggered whenever possible.

- **RULE 9.** Ladder way and protecting platform must be carried up near the top of the raise as practicable.
- **RULE 10.** Be sure to bar down loose rocks before starting to drill.
- **RULE 11.** Watch closely the placing of temporary stull. Hitches should be properly cut.
- **RULE 12.** Always build a good staging to drill from. See to it that flooring is made of sound lumber free from knots.
- **RULE 13.** All raises must have temporary cover on top of the last timber set or cribbing to protect the workers from falling and to prevent rocks and tools from falling down the manway.
- **RULE 14.** Keep timber slide box in repair and as close to the top staging.
- **RULE 15.** In development raises or stopes, keep ladders and staggers from loose rocks, tools, drills, etc. Remove all loose rocks lodged in ladder rungs and platforms, after each blasting and repair any broken or defective ladder rungs.
- **RULE 16.** Do not throw lighted paper down a raise to see the contents of the chute.
- **RULE 17.** Hang-ups in chutes beside active manway shall be brought down by blasting.
- **RULE 18.** It is forbidden to draw all the broken rocks from a raise while it is in process of being driven, except when repair is to be made in the chute which requires the withdrawal of the rocks.
- **RULE 19.** When relining chute, always wear a safety belt fastened to a safety line or rope securely fastened above.

SECTION 8

SPECIFIC RULES REGARDING GROUND SUPPORT

- **RULE 1.** When necessary, all working places and travel roads shall be kept securely timbered.
- **RULE 2.** The Safety of the mine depends upon your timbering their working places properly. Don't use defective timber.
- **RULE 3.** Always bar down all loose and scaly ground before starting to timber. When round, break tight, leaving no room for bridge caps, then stagger the laggings.
- **RULE 4.** In grounds requiring timbers, booms, safety stulls or spilling, projecting ahead from the past set, the same must be used to protect men from falls of ground.
- **RULE 5.** No workman shall remove or cut timber which is in place except directed to do so by his Mine head.
- **RULE 6.** At all times, leave a clear passage for a quick retreat.
- **RULE 7.** Timbermen should exercise a great care and use proper judgment when putting in or standing a set of timber, stull, etc. loose ground must be barred down. This is very important, as grounds seemingly solid, may be jarred loose when you start to block the set.
- **RULE 8.** When erecting a post before the cap is in place, a temporary support shall be nailed to the post.

- **RULE 9.** Nail all unframed collar braces in place at both ends. Place blocks at the end of the caps directly over the post. Blocks set over the middle of the cap tend to break it with a minimum of pressure.
- **RULE 10.** All wedges and blocks in the timbering must be kept tight at all times.
- **RULE 11.** Staging constructed in a timber set must be supported by two vertical cleats nailed to the post.
- **RULE 12.** Every flooring must be held in place by at least one nail
- **RULE 13.** Projecting nails or spikes must be pulled, driven in bent or clinched.
- **RULE 14.** Before going upon a platform or scaffold of any description, see that it is properly erected and safe.
- **RULE 15.** Ladder in man ways must extend at least two (2) feet above platforms.
- **RULE 16.** Guard rails must be erected around or across all chutes or holes of any kind.
- **RULE 17.** Tools or timbers are not to be thrown down man ways or chutes. When tools are being hoisted or lowered in man ways, they shall be securely tied. Care must be taken that no one below is in danger.
- **RULE 18.** Manways must be kept free of obstructions and must be protected with covering.
- **RULE 19.** When doing repair work in a raise or shaft, always place a bulkhead over you and a safety platform below you.
- **RULE 20.** If for any cause, the necessary timber is not available and the working place presents a hazard, the work at this place shall stop until the necessary timber is supplied.
- **RULE 21.** All cutting or chips must be cleaned up by the workmen

SECTION 9

GENERAL RULES ON EXPLOSIVES

- **RULE 1.** A competent person shall always be in charge of explosives and the magazines which explosives are stored.
- **RULE 2.** The person in charge of explosives shall keep the magazine keys and shall be responsible for all proper safety precautions.
- **RULE 3.** If artificial light is needed to enter a magazine, only an electric flashlight or battery lamp shall be used.
- **RULE 4.** Oil burning or chemical lamps, lanterns, candles, torches, matches or any open flame apparatus must not be used.
- **RULE 5.** Shooting or the carrying of firearms in or around magazines or near explosives is forbidden, except when the firearms are in protective case or receptacle especially constructed for the purpose.
- **RULE 6.** Unauthorized persons shall not be allowed near explosives or to handle them.
- **RULE 7.** Explosives shall not be allowed to become wet or exposed to the weather or to rough treatment or handling.

- **RULE 8.** Metal hooks or other metal tools are not to be used in handling explosives except those approved by the Explosive Manufacturer and approved by the Bureau of Mines.
- **RULE 9.** Detonators and primers must be kept apart from other explosives until ready for use.
- **RULE 10.** Detonators or other explosives shall not be carried in the pockets or clothing or left carelessly lying around where others can meddle with them.
- **RULE 11.** Packages of explosives shall not be opened or reboxed with metal tools or in close proximity to other explosives.
- **RULE 12.** Cars or truck containing explosives shall be protected when not being unloaded by:
 1. Securely locking and placing them in such a location that no unauthorized persons can approach them and
 2. Being duly guarded.
- **RULE 13.** Readily flammable materials shall be removed from places where explosives are being kept or handled.
- **RULE 14.** Packages of explosives or explosives must not be thrown, dropped, slid over one another or otherwise roughly handled while being loaded or unloaded.
- **RULE 15.** Vehicles used for transporting explosives shall be inspected to determine that they are safe and mechanically conditioned for the task assigned.
- **RULE 16.** Unauthorized persons must not be permitted to ride on vehicles transporting explosives. The driver, helper and authorized passengers must not smoke.
- **RULE 17.** A vehicle containing explosives must never be left with its motor running or unloaded without first stopping the motor and setting the brakes securely. Explosive cases must never be left immediately back of the exhaust, as spark may start a fire or cause an explosion.
- **RULE 18.** Explosives or detonators in containers must always be left unattended except when they are placed in a locked magazine.
- **RULE 19.** Vehicles transporting explosives must not be overloaded, and in no case shall boxes of explosives be piled higher than the body.
- **RULE 20.** Unnecessary delay or stops shall be avoided in transporting explosives.
- **RULE 21.** Vehicles containing explosives shall not be taken inside a garage or shop for repairs and other purposes.
- **RULE 22.** Vehicles containing explosives shall not be left unattended
- **RULE 23.** Detonators shall not be transported in the same vehicle where other explosives area carried.
- **RULE 24.** Metals, metal tools, or flammable substances or other substances or materials must not be carried in the same vehicle transporting explosives.
- **RULE 25.** Explosives shall not be placed near "live electric wires

SECTION 10

SPECIFIC RULES ON UNDERGROUND EXPLOSIVES

(TRANSPORT, STORAGE, HANDLING and BLASTING)

- **RULE 1.** Cases of explosives delivered underground shall be taken promptly to the local distribution magazine.
- **RULE 2.** Capped fuse shall be taken underground only in covered, padded and insulated containers.
- **RULE 3.** No detonator shall be mixed with other explosives in the same compartment being carried in a proper container to the face for immediate use.
- **RULE 4.** When carrying explosives to the face for immediate use, they shall be placed in a sack or other approved container especially furnished for this purpose consisting of two compartments, one for the powder and one for the caps and fuse, so that the powder and caps are separated in the sack.
- **RULE 5.** When explosives are transported on hand trucks, adequate protection shall be provided to avoid collision including, where necessary, the use of flagman and/or any other precautions which the special case may require.
- **RULE 6.** Powders and primers or caps must be handled separately when being hoisted or lowered.
- **RULE 7.** It is strictly forbidden to carry explosives or fuse in one's pockets, boots, etc.
- **RULE 8.** No loose, flammable materials, oils or other combustible substances shall be kept or stored nearer than fifty (50) feet from an issuing magazine .
- **RULE 9.** The minimum amount of explosives shall be kept in underground magazines.
- **RULE 10.** Magazines shall be kept securely locked at all times except when the person in charge thereof has to enter the same.
- **RULE 11.** Detonators shall be kept separate from the explosives and in such a location that their accidental explosion shall not cause the detonation of the powder.
- **RULE 12.** It is prohibited to hang fuse on nails or other projections which may cause a sharp bend in the fuse.
- **RULE 13.** Blasting caps shall not be removed from the original container, except when they are being used for capping fuses.
- **RULE 14.** When supplies of explosives or fuse are removed from a magazine, those that have been stored longest in the magazine shall be taken first.
- **RULE 15.** Smoking or open flames in or near the vicinity of any magazine are prohibited.
- **RULE 16.** Fuses shall be capped in a suitable place outside of explosive magazines and away from explosives that maybe accidentally detonated.
- **RULE 17.** Only an approved broad jawed crimper in satisfactory working condition shall be used for crimping caps and fuse. The use of any other instrument including knife edge or narrow crimper or biting with the teeth is strictly forbidden.

- **RULE 18.** It is forbidden to use fuse that has been tampered, damaged or injured by falling rocks or any other object. Physical injury to fuse generally results in increased rate of burning.
- **RULE 19.** Only wooden punch shall be used in making holes for inserting detonators in the process of making primers.
- **RULE 20.**
 - A. The cap shall be securely buried in and surrounded by the explosives of the primer cartridges.
 - B. In any blasting operation, more than one (1) primer in a hole is not permitted.
- **RULE 22.** Proper wrappings must not be removed from cartridges.
- **RULE 23.** Only a wooden stick shall be used for tampering cartridges in a hole.
- **RULE 24.** Fuse lengths used in blasting must be long enough to allow ample time for lighting all the holes and reaching a place of safety.
- **RULE 25.** All fuses shall extend at least two (2) feet in length outside or beyond the collar of the hole after cutting the fuse to give proper sequence to the holes.
- **RULE 26.** As far as maybe done, fuse ends should be grouped together for bunch lighting and should not be coiled inside the collar of the holes.
- **RULE 27.** Two (2) men must light a maximum of twenty five (25) holes. In exceptional cases for larger rounds, additional men shall be employed in direct proportion to the number of holes in multiples of twenty five (25) holes.
- **RULE 28.** Lightings may be done with fuse lighters.
- **RULE 29.** In fuse blasting, always use a "FUSE TIMER" thereby giving the men sufficient time to leave the working place before detonation of the holes take place. The fuse timer must be lighted simultaneously with the first fuse. When burn out men must leave the place even if the fuses are not all lighted.
- **RULE 30.** No work of any kind shall be done at the place of blasting immediately after completing the lighting of the holes.
- **RULE 31.** Before blasting, warnings shall be given in all adjoining workings and guards must be stationed at all entrances and approaches to the area that can be affected by the blast.
- **RULE 32.** Guards guarding the entrances and approaches to blast must remain at their stations until blasting is finished.
- **RULE 33.** Guards must count the number of the hole blasted.
- **RULE 34.** Blasting shall be done only at specified times, preferably at the end of the shift or at meal periods. Blasting at other times should only be done by special permission from the company supervisors, or contractors supervisors in charge of the work.
- **RULE 35.** Missed holes or suspected missed holes shall be reported to the "LEADMAN" of the incoming shift.
- **RULE 36.** In case of a misfire or suspected misfire, no employee shall be allowed to return to the working place where blasting is done until the expiry of thirty (30) minutes.

- **RULE 37.** No employee shall return to a place where a blast had been fired until the smoke and fumes from blasting have been cleared sufficiently by a moving current of air to insure safety from asphyxiation.
- **RULE 38.** No work is to be allowed until all bootlegs are clearly washed out and any missed hole is reblasted.
- **RULE 39.** Any hole or portion of a hole that contains any explosives, either dynamite or ANFO, and with or without an unexploded cap must be treated as misfire.
- **RULE 40.** Missed holes with a fuse in it must be blasted at once with a new primer before any other work is done.
- **RULE 41.** Any hole containing explosives, ANFO or dynamite but without an unexploded cap in it can be washed out with water. Any hole that cannot be washed thoroughly to the bottom must be reblasted before any work is done.
- **RULE 42.** A hole must not be drilled alongside a missed hole or bootleg.
- **RULE 43.** It is absolutely forbidden to extract the charge from a missed hole. It must be reblasted.
- **RULE 44.** Holes which have previously been charged with explosive must not be deepened.
- **RULE 45.** It is prohibited for a miner to blast hole when working alone. Two (2) men shall always be at the face when fuses are being lighted.

SECTION 11

METHODS IN LOADING AND BLASTING WHEN USING ORDINARY CAP AND FUSE

- **RULE 1.** Be sure that all the holes have been properly cleaned out by the use of the blow pipe. Keep your face away from the hole when using the blow pipe to prevent flying particles of rocks from getting into your eyes. When blowing out air line, point the hose away from your companion.
- **RULE 2.** Do not leave your dynamite, fuse and caps on the ground where you may step on them or where rocks and other objects may fall on them.
- **RULE 3.** Do not attempt to cut fuse with edges of shovel or any dull instrument. Use knife or pocket knife.
- **RULE 4.** Do not kink, bend or handle your fuse roughly.
- **RULE 5.** Remember our fuse burns at the rate of one foot in 40 seconds or three feet in two minutes.
- **RULE 6.** In charging holes, tamp firmly with wooded tamping stick using direct pressure only. Don't pound, strike or punch. When placing the primer cartridge, use only moderate pressure.
- **RULE 7.** All fuses must be cut diagonally on the end to length of about one inch before starting to spit the round.

- **RULE 8.** All tools and equipment must be removed from the face before starting to spit the round.
- **RULE 9.** When spitting the fuse, be sure to point it away from your face.
- **RULE 10.** Be sure all necessary work is done before spitting the fuse and leave immediately after spitting.
- **RULE 11.** Only such quantities of blasting supplies needed for immediate use must be taken from the bodega. All unused powder, fuse, caps or explosives must be returned immediately to the bodega during your shift.
- **RULE 12.** Loaded holes must not be left unblasted. They must be blasted immediately after they are loaded.

SECTION 12

SAFETY RULES INSIDE ANFO BODEGA/ANFO

- **RULE 1.** Carry the plastic bag of ANFO inside a explosive bag when going from the bodega to your working place. Carry caps and fuse in a separate explosive bag.
- **RULE 2.** Treat ANFO just as you would treat dynamite at all times.
- **RULE 3.** Smoking or open flames are not allowed when handling ANFO. It is highly flammable.
- **RULE 4.** Do not throw ANFO around when transporting it.
- **RULE 5.** Keep ANFO in a dry and safe place always.
- **RULE 6.** In case of misfires with ANFO, wash out the ANFO with water. Place a new primer in the hole bottom and reblast the hole. Do not try to remove the old primer.
- **RULE 7.** Always turn on your fan and/or airline after the blast.
- **RULE 8.** Do not enter the face if there is any sign of smoke. If there is stinging sensation in your eyes, get out at once for this means NO₂ (Nitrogen Dioxide) is present.
- **RULE 9.** Wet down the face thoroughly and muck upon your return to the blast area and repeat this procedure several times during mucking cycle.

SECTION 13

SPECIFIC RULES GOVERNING MINE HAULAGE

- **RULE 1.** A motorman must not leave his motor without first seeing the control in neutral, putting his brake in place.
- **RULE 2.** When taking over a train, the train crew will inspect the train to see to it that it is in proper running order, including headlights and breaks. Defects or deficiencies must be reported immediately to the immediate supervisor.

- **RULE 3.** Trains on a mainline must be pulled with the motor on the front end of the train except in an emergency when permission must first be obtained from the boss on the shift.
- **RULE 4.** When necessary to push a train, the brakemen should ride inside the second car from the end of the train.
- **RULE 5.** Do not pull a train over a track that is covered with rocks, timber or trash.
- **RULE 6.** The ore train has a right-of-way. All other trains or trammers must flag all turnouts and crossing and see to it that all switches are left in favor of the ore train.
- **RULE 7.** A motorman must keep his train under control at all times such that he can stop within the distance he can see ahead or within the distance to the next crossing or turnout.
- **RULE 8.** Do not reverse the motor for braking a train except in an emergency to protect life or property. Train speeds must conform to the local mine orders
- **RULE 9.** A brakeman running a motor is subject to the same rules as if he were a regular motorman.
- **RULE 10.** Motormen must sound warning signal before starting, backing or when approaching crossings, curves or doors. They shall sound a warning signal at any one in drifts or tunnels.
- **RULE 11.** A motorman must not take signals from anyone except from the braking crew working with his train.
- **RULE 12.** A motorman must not move the train if he is in doubt of the signal
- **RULE 13.** When using a light signal, the train crew must use the following signals:
 1. To stop a train in motion – wave light horizontally.
 2. To move a train towards the source of the signal – swing light in a circular motion.
 3. To move a train away from the source of the signal – wave light in a vertical direction.
- **RULE 14.** Every brakeman must carry a police whistle. The following signals shall be used:
 1. One (1) blast of the whistle to stop the train in motion.
 2. Two (2) blasts of the whistle to move a train backward.
 3. Three (3) blasts of the whistle to move the train forward slowly.
 4. Four (4) blasts of the whistle to move the train backward slowly.
- **RULE 15.** Motormen are in charge of their respective crews and trains and shall share with them the responsibility for the operation of the haulage work in accordance with the operating and safety rules.
- **RULE 16.** A motorman must not allow other workmen ride his train neither must a workman ride on a train unless the workman has permission from the company supervisor.
- **RULE 17.** Train crews must not ride between mine cars, or on the top of loaded cars, or pass from one side to another or transfer from one car to another while the train is in motion.
- **RULE 18.** A motorman must not permit anyone to get on or off the train while it is in motion or allow the brakeman make flying switches.
- **RULE 19.** A motorman must not allow the brakeman to work or run alongside of the train while the train is in motion.
- **RULE 20.** Don't attempt to pass a moving car or train; instead, go to a place of safety and wait till it has passed.

- **RULE 21.** A motorman must never enter a block with the signal set against him.
- **RULE 22.** Train crew must not attempt to make electrical repairs on motors, but should report the defect at once at their boss or electrician in charge of motor repairs.
- **RULE 23.** In pulling chutes, use only standard bars with handles provided for its purpose.
- **RULE 24.** Before leaving a loading area, the train crew should look over train and remove bars, pipes, timber or other obstructions that might touch electric wire or timber.
- **RULE 25.** BREAKMAN! Be careful in coupling cars. Do not attempt to make link and pin couplings until the motor has stopped
- **RULE 26.** Always use coupling stick or hook instead of your hands when coupling cars.
- **RULE 27.** Explosives must not be transported on locomotives unless proper authorization is obtained. When special cars are provided for transporting explosives by locomotive, it shall be pulled and not pushed
- **RULE 28.** All men in the mine transportation department must be thoroughly versed with blasting rules pertaining to blasting between stopes and haulage level. See rules under explosives.
- **RULE 29.** No one is permitted to ride on any locomotive or motor train unless authorized.

SECTION 14

SPECIFIC RULES ON OXYGEN/ACETYLENE

(WELDING AND CUTTING)

Compressed gas cylinders are safe for the purpose for which they are intended. Serious accidents connected with their handling, use and storage are invariably traceable to their abuse or mishandling. The following rules cover the main safety rules to be observed in the handling storage and use of compressed gas cylinders.

a. RULE 1. HANDING

- a. Never drop cylinders nor permit them to strike each other violently.
- b. Never use a lifting magnet or a sling (rope or chain) when handling cylinders. A crane should be used when a safe cradle or platform is provided to hold the cylinders.
- c. Close valve before shipment. Be sure that protective caps for cylinders and nuts for valve outlets are placed back before shipping empties.
- d. When the empty cylinder are to be returned, mark them empty or "MT" with chalk.
- e. Close the valves and place back the valve protection caps.
- f. Always consider cylinders as full and handle them with corresponding care. Accidents have resulted when containers under partial pressure were thought to be empty

b. RULE 2. STORAGE

- a. All cylinders must be protected against excessive rise of temperature. Cylinders may be stored in the open but should be protected against extremes of weather and from the ground to prevent it from rusting.
- b. Never store cylinders near highly inflammable substances, such as oil, gasoline, waste, etc.
- c. Cylinders should not be exposed to continuous dampness.
- d. Do not store full cylinders near passageways or gangways, or in locations where heavy moving objects may strike or fall on them.
- e. Cylinders of oxygen should not be stored indoors close to cylinders containing flammable gases. Unless they are stored apart, oxygen cylinders and flammable gas cylinders should be separated by a fire resistant partition.
- f. Cylinders are not designed for temperature in excess of 130 F. Accordingly, they should not be stored near sources of heat, such as radiators or furnaces, or near highly flammable substances like gasoline, oil, etc.
- g. Cylinders storage should be planned so that cylinders will be used in the chronological order in which they were received from the supplier. Empty and full cylinders should be stored separately. The empty cylinders should be plainly marked to avoid confusion. Group together cylinders which have the same contents.

c. RULE 3. USE

- a. Where caps are provided for the valve protection, such caps should be kept on cylinders except when cylinders are in use.
- b. Never attempt to mix gasses in a cylinder.
- c. Don't try to roll cylinder on the ground or use for any purpose other than to carry gas.
- d. Never tamper with the safety devices in valves or cylinders.
- e. Open cylinder valves slowly. Never use other wrenches or tools except those provided.
- f. Make sure that the threads on regulators or other unions have the same threads as those on the cylinder valve outlets. Never force connections that do not fit.
- g. Regulators and pressure gauges provided for a particular gas must not be used on cylinders containing different gases.
- h. Never attempt to repair or alter cylinders or valves.
- i. Unless the cylinder valve had first been closed tightly, do not attempt to stop a leak between the cylinder and the regulator by tightening the union nut.
- j. Fuel gas cylinders in which leaks occur should be taken out of use immediately and handled as follows:

-- Close the valve and take the cylinder outdoors as well away from any source of ignition . Properly tag the cylinder and notify the supplier. A regulator attached to the valve may be used temporarily to stop leak through valve seat.

-- If the leak occurs at a fuse plug or other safety device, take the cylinder outdoors well away from any source of ignition. Open the cylinder valve slightly, and permit the fuel

gas to escape slowly. Tag the cylinder plainly. Post warnings against approaching persons with lighted cigarettes other sources of ignition.

--Open the cylinder valve slightly and permit the fuel gas to escape slowly. Tag the cylinder plainly and post warnings against approaching persons with lighted cigarettes and other source of ignition.

- **RULE 4. OXYGEN USE**

- a. Never permit oil and grease to come in contact with oxygen cylinders, valves, regulators, gauges and fittings.
- b. Do not handle oxygen cylinders or apparatus with oily hands or oily gloves.
- c. Never use oxygen from a cylinder without reducing the pressure through a suitable regulator intended for that purpose.
- d. After removing valve cap, open valve an instant to clear opening of particles of dust or dirt.
- e. If valve is difficult to open, point the valve opening away from you and use greater force. Avoid, however, the use of a wrench on valves equipped with hand wheels.
- f. After attaching regulator and before cylinder valve is opened, be sure that the adjusting screw of the regulator is released.
- g. Never permit oxygen to enter the regulator suddenly. Open the cylinder valve slowly.
- h. Before the regulator is removed from a cylinder, close the cylinder valve and release all gas from the regulator.
- i. Sparks or flame from welding or cutting torch should not be allowed to get in contact with cylinders.
- j. Never interchange oxygen regulators, hose, or other appliances with other gases.
- k. Open fully the cylinder valve when cylinder is in use.
- l. Never attempt to mix gases in an oxygen cylinder.
- m. Never use oxygen as a substitute for compressed air. It is dangerous to use oxygen for pneumatic tools, to start Diesel engines, for imposing pressure in oil reservoirs, for paint spraying, for blowing out pipelines, etc.
- n. Do not store cylinders near inflammable materials especially oil, grease or any substance likely to cause or accelerate fire. Oxygen is not flammable, but supports combustion.
- o. Do not store reserved stocks of cylinders containing oxygen with reserve stocks of cylinders containing combustible gases.

- **RULE 5. ACETYLENE USE**

- a. Acetylene cylinders should be used and stored in an upright position to avoid possibility of drawing out acetone.
- b. Acetylene should never be used at a pressure exceeding 15 psi
- c. Keep sparks and flame away from acetylene cylinders.

- d. Never use acetylene from cylinders with torches or other devices equipped with shut-off valves on the acetylene supply connections without reducing the pressure through a suitable regulator attached to the cylinder valve.
- e. After removing valve cap, open valve an instant to clear the opening of the particles of dust or dirt.
- f. After attaching regulator and before cylinder valve is opened, be sure that the adjusting screw of the regulator is released.
- g. Before regulator is removed from a cylinder, close the cylinder valve and release all gas from the regulator.
- h. Never interchange acetylene regulators, hose, or other appliances with similar equipment intended for use with other gases.
- i. Never attempt to transfer acetylene from one cylinder to another or mix any other gas with it in the cylinder.
- j. Never use manifolds or acetylene cylinders unless constructed upon the advice of a qualified acetylene engineer.
- k. The wrench used opening the cylinder valve should always be kept on the valve spindle when cylinders is in use.
- l. When returning empty cylinders, be sure that the valves are closed to prevent evaporation of acetone.
- m. The pressure in an acetylene cylinder does not accurately indicate the amount of gas therein. The amount is determined by weight.
- n. Never test for acetylene leaks with an open flame. Use soapy water.

SECTION 15

SPECIFIC RULES ON FIRE

- **RULE 1.** A serious fire might jeopardize the lives of everyone, therefore every person connected directly or indirectly with his company should take every precaution to prevent fires. Fires may be started from cigarette butts, lamps against timber, carbine and trash thrown around, oily waste and rags, oil soaked timber, gasoline and acetylene torches improperly installed electrical equipment, etc.
- **RULE 2.** In case of fire, the first consideration must be the safety of all men, then attention can be given to the saving of property.
- **RULE 3.** Anyone discovering a fire or dense smoke must do what he can to extinguish the fire. Remember the first few minutes are decisive and extinguishing a fire at the very start will often prevent a serious fire.
- **RULE 4.** In case the fire cannot be put out at once, immediately notify the boss in charge, the mine office and all fellow workmen in your vicinity. Get out of the mine immediately and report at the time office for a check off.

- **RULE 5.** A boss upon being warned of a fire should:
 - a.* Make sure all men are safe.
 - b.* Make sure that the company officials have been notified.
 - c.* Get out of the mine and report at the time office for a check off.

- **RULE 6.** Building unwanted fires underground is strictly prohibited.
- **RULE 7.** It is prohibited for anyone to tamper and/or play with any fire protection equipment. Do not stack materials at any place that will interfere with the closing of a fire or block exit passages.
- **RULE 8.** Employees shall exert efforts to prevent the inception of any unnecessary fire in any part of the company's property including brush/forest fire.
- **RULE 9.** "NO SMOKING" signs must be displayed in gas station, explosive bodega, paint shop, acetylene and oxygen tanks storage and other work rooms with flammable substances. The sign must be obeyed.
- **RULE 10.** Employees shall follow posters showing direction of exit in case of fire.
- **RULE 11.** Turn off the welding and cutting torches when not in use.
- **RULE 12.** Refrain from all welding jobs close to highly flammable materials such as paint, oil, gasoline, etc.
- **RULE 13.** Welding torches underground shall be provided with fire extinguisher (portable type).
- **RULE 14.** Ventilation door shall not be changed, fans shall not be reversed nor water turned into the air main, except on orders from the Superintendent or Mine Manager.
- **RULE 15.** All members of the Mine Rescue Teams will assemble at the Safety Office upon hearing the fire alarm or siren.
- **RULE 16.** All members of the Mine Rescue Team must attend their scheduled refresher as required.
- **RULE 17.** Should conditions arise where it is impossible to make your escape from the mine due to smoke fire, barricade yourself in a dead end or blind drift. After completing barricades, put out all carbide lamps and rest to conserve oxygen supply. Rap on pipe line and rail so that rescue crew can hear your signal. Conserve your food and water. If you have compressed air, crack valve slightly. Barricade can be built from hoards, tin, mud, canvass, or timber plastered with clay. Wait for rescue team.

SECTION 16

RULES AND PRACTICES OF THE MILLING GROUP

A. GENERAL RULES

- **RULE 1.** All supervisors working inside the Mill area are responsible for the safe operation of the plant and have authority to enforce the safety rules and regulations embodied in the Safety Manual of the Company.
- **RULE 2.** All operators, maintenance personnel, and supervisors should implement the potential hazards associated with the mill operation and maintenance of all mill plant equipment and its accessories and how to avoid them.
- **RULE 3.** The operators are the key to safe job performance and should implement the basic safety precautions and help prevent serious injury and damage to company property.
- **RULE 4.** All mill employees should know that the two common hazardous or toxic materials present inside the Mill Plant, are: dust which is brought about by crushing operations; and Sodium Cyanide, a chemical reagent used in the dissolution of gold.
- **RULE 5.** All work-related injuries or accidents no matter how slight must be reported immediately to the supervisor directly in charge of the job, then covered with an accident report submitted to Safety Office within 24 hours after occurrence.
- **RULE 6.** Good housekeeping is the foundation of a productive, safe and conducive working condition of any operation. Thus, the following housekeeping rules should be implemented:
 - a. Recover scattered pieces of carbon and pulp spillage and put them back into circuit. Avoid pumping spillage contaminated with oil or any lubricant because it has an adverse effect on leaching, and to carbons.
 - b. Attend to wastes, scattered materials, and temporary fixtures that often cause accidents.
 - c. Usable materials either mixed with waste or left to spoil and rust, should be recovered, cleaned, and properly stored for future use.
- **RULE 7.** Never indulge in practical jokes or horseplay while at work or inside the Plant.
- **RULE 8.** Roaming around or loitering in other areas of the Plant not related to one's assigned job is strictly prohibited.
- **RULE 9.** No employee is allowed to loiter around the Plant after the end of his shift.
- **RULE 10.** No employee under the influence of liquor or any prohibited drug is permitted to enter the Plant Compound, be it inside the plant, offices, buildings, or other work areas. Bringing in the same is not allowed in the areas mentioned.
- **RULE 11.** While inside said areas, littering is prohibited. Put your trash in designated receptacles.

- **RULE 12.** Observe pipe color coding to identify the materials being transported. Pipe contents are classified by colors into seven (7) main categories:
Red - Fire protection, Materials and Equipment
Green - Safe Materials: No risk in handling because these are usually at low temperature and pressure such as Potable/Fresh water
Gray - Steam, process solution, and slurry.
Brown - Flammable or combustible materials such as Diesoline and LPG
Violet - Hazardous or toxic materials such as reagents (Caustic soda and Sodium Cyanide)
Light Blue - Process air (Compressed air)
Black - Other fluids such as tailings

B. SPECIFIC RULES IN THE MILL PLANT

- **RULE 1.** Always wear safety hat and working shoes or boots.
- **RULE 2.** Dust and chemical respirators are provided and must be worn as to its application.
- **RULE 3.** Always wear rubber gloves when handling chemical reagents.
- **RULE 4.** Avoid using loose clothing. Keep sleeves buttoned.
- **RULE 5.** Be a good housekeeper. Keep the floor clean from oil, ore spillages, grease, rags, steel scrap and other hazardous objects. Keep loose parts in the tool box or tool room.
- **RULE 6.** Drive guards and other protective devices on moving machinery should be in place and in good order. Report any that are not.
- **RULE 7.** Never clean moving parts of any equipment while in motion.
- **RULE 8.** Know the locations of all safety equipment, fire extinguishers, first aid kit, etc.
- **RULE 9.** Shut off equipment before working on it and place a tag which reads "DO NOT START, MEN WORKING" at the push button.
- **RULE 10.** Apply caution when using flammable solution.
- **RULE 11.** Do not use the plant/compressed air in cleaning your body. It may contain small particles that may cause injury.
- **RULE 12.** Never attempt to do electrical repairs. Call the attention of the mill electrician to do the repair work.
- **RULE 13.** Think safety for yourself and your fellow workers. Maintain discipline and forbid horseplay or practical jokes.
- **RULE 14.** No work should ever be attempted above or below an equipment when in operation.
- **RULE 15.** Eye protection, skin protection, and respiratory masks are absolute must when working with toxic or irritant chemicals.
- **RULE 61.** Make sure lighting and ventilation is adequate.
- **RULE 17.** Enter hopper or a bin for repairs, only with a safety belt, a lifeline, and with a companion at all times inside the vessel.
- **RULE 18.** Enter a rod or ball mill for repairs/inspection only with only with the control switch shut off and a trouble light installed or a cap lamp available for use.
- **RULE 19.** Do not use conveyor belts as walkways.
- **RULE 20.** It is strictly prohibited to ride on conveyor belts.

- **RULE 21.** Never look into crushing cavity without protection from possible flying materials while the crusher is in operation.
- **RULE 22.** Use ear protective devices if noise level is higher than allowed by law.
- **RULE 23.** Always follow SOP's in transporting, handling, and storing hazardous materials described in greater detail in the CIP, MET R&D SOP's.
- **RULE 24.** Use saw dust to absorb oil spilled on the floor. Scrape off the oil-laden saw dust and dispose into waste cans or in designated area outside the plant.
- **RULE 25.** Maintenance crew are required to leave a job site in clean, orderly and safe condition. Tools, unused materials and waste should not be left behind.
- **RULE 26.** When using water for cleaning, be careful not to wet interiors of motors, electric switches and taped portions of electric wires.
- **RULE 27.** Before starting any equipment:
 - a. Ensure that all items of equipment are properly guarded, and all guards are secured and safe.
 - b. Ensure that all works on the equipment are completed.
 - c. Ensure that all equipment are free from foreign materials, tools, ladders, etc.
 - d. Finally, check the equipment for safety, warning workers near the equipment before pressing the start button. Remain near the stop button until you are sure that the equipment is operating safely and satisfactory.

C. SPECIFIC RULES IN THE CIP PLANT

- **RULE 1.** All CIP plant employees should be aware of the process employed in the plant including the handling of hazardous materials that may be hot, corrosive, toxic or with explosive qualities.
- **RULE 2.** Always assume that the slurry or solution in the circuit are toxic due to the presence of cyanide as leachant, and due to hot and corrosive solutions at high temperature and pressure.
- **RULE 3.** Whenever inside the plant, always wear issued safety gadgets such as hard hats, working boots, respirators, rubber gloves, apron, etc.
- **RULE 4.** Loose clothing can be caught by moving parts of equipment. Keep sleeves buttoned and jackets belted.
- **RULE 5.** In case of emergency, know where to get immediate assistance and where safety gadgets are being kept such as fire extinguishers, medicine kits, etc.
- **RULE 6.** Drive guards and other protective devices of moving equipment must be in place and in good condition. Report any that are not.
- **RULE 7.** Observe precautions when checking the bearing temperature of any equipment. Bear in mind that the reason for checking it in the first place is to find out whether it is running abnormally hot.
- **RULE 8.** Never attempt to apply oil or render any repair on a machine while it is in motion, unless absolutely necessary. If machinery cannot be shut down, special care or precaution is a must to accomplish the job safely.

- **RULE 9.** Observe precautionary measures when climbing or ascending high stairways especially when carrying loads. Support yourself by holding the railings. WALK, DON'T RUN! Running on stairway is hazardous.
- **RULE 10.** When working on elevated areas, use safety belts. When using platforms or ladders for supports, be sure to secure them firmly.
- **RULE 11.** When turning off an equipment, make sure that safety switch is locked with a tag provided which reads "DO NOT START, MEN AT WORK!".
- **RULE 12.** Think of safety for yourself and insist that your fellow workers do the same.
- **RULE 13.** The following special rules on transport-handling and storing hazardous materials shall be applied with strictly:
 - a. Use respirator when handling powdered chemicals.
 - b. Do not eat nor smoke after handling said materials unless you have washed your hands and face.
 - c. When mixing, avoid generating too much dust. Dust off outer clothing, and wash or bathe before going home.
 - d. Avoid skin contact with any chemical for longer periods of time than necessary.
 - e. Do not said materials without chemical gloves if you have open wounds or cuts on your hands.
 - f. Do not expose or leave chemical containers open. Empty containers must be decontaminated, neutralized, or diluted before disposal. Keep all chemicals on proper containers and proper places. Always adhere to the Threshold Limit Value (TLV), or Ceiling Valve.

Threshold Limit Valve - is the time weighted average concentration of the work atmosphere for a normal eight (8) hour work day and forty eight (48) hour work week, to which nearly all workers are repeatedly exposed, day after day, without any adverse effect

Ceiling Valve - is the concentration that should not be exceeded even just instantaneously

- g. Store the same kind of chemical or reagent at one place and not mixed with other kinds to avoid possible contamination or accidental action of spilled materials. Provide a separate space for each material with respective labels.
- **RULE 14.** The following special rules and the handling of acids must be observed:
 - a. When mixing, be sure to use chemical gloves and safety clothing.
 - b. Add acid to water slowly. Never add water into acid as this will cause explosive reactions.
 - c. Before transporting, be sure to inspect the container for any leakage and whether the cover is securely tightened. Do not drop filled containers.
 - d. When transporting acid along with cyanide make sure to position them separately because accidental mixing of the two chemicals will emit a highly toxic gas.

- **RULE 15.** The following special rules governing the treatment and handling of Caustic Soda (NaOH) - Anhydrous and Aqueous Solutions must be observed and enforced:
 - a. When mixing, avoid generating dust, sprays or airborne droplets.
 - b. Avoid contamination of the eyes which can result to permanent injury and possible loss of sight.
 - c. Add slowly to water as it reacts violently with water which can rapidly lead to boiling and spattering.
 - d. Caustic Soda also reacts violently with ACIDS, thus avoid mixture without the necessary precautionary means.
 - e. In case of fire, fire fighters must appreciate and be warned of the materials' highly corrosive nature when involved in burning.
- **RULE 16.** Sodium Cyanide (NaCN) in its undissolved form is a white solid, in granules or in powder and is considered highly toxic by all exposure routes. Thus, the following special rules must be observed and enforced:
 - a. When mixing, apply good occupational work practice, avoid all contact, and use protective gadgets such as impervious gloves, full face shield, or chemical goggles. If dust is generated or fumes evolve, wear a respirator. Mix where there is adequate ventilation. Always wash hands and face before taking in anything or before going to the comfort room. Dust off and wash contaminated clothing and protective equipment before reuse.
 - b. When opening sealed containers of NaCN, adequate ventilation is required to dilute the trapped cyanide gas inside the container.
 - c. Avoid contact of the material with weak acids and even moist because it will emit hydrogen cyanide.
 - d. Keep dry when under storage.
 - e. It is non-combustible but decomposes when heated and emits toxic HCN fumes which are flammable, thus contributing to fire risk. Fire fighters should wear self-contained breathing apparatus when extinguishing the fire by using water spray, chemical or ordinary fire extinguishers.
 - f. Early symptoms of exposure are:
 - Irritation of eye and throat
 - Difficulty in breathing
 - Headache
 - Confusion
 - Nausea leading to unconsciousness
- **RULE 17.** Always observe no smoking areas, also rules governing restricted areas as provided in greater detail in the CIP Plant SOP's.
- **RULE 18.** Before starting any equipment the following must be ensured:
 - a. All equipment should be properly guarded.
 - b. All guards be secure and safe
 - c. All repairs on the equipment should have been completed

- d. All equipment should be free from foreign materials, tools, ladders, etc.
 - e. Warn all personnel in the area before starting any equipment
 - f. Ensure that the main switch or circuit breaker is energized.
 - g. Finally, check the equipment for safety before pressing the start button. Remain near the "STOP" button until you are sure that the equipment is operating safely and satisfactorily.
- **RULE 19.** When doing electrical repairs, the following must be observed strictly:
 - a. Never attempt to do electrical repairs. Only an electrician must work with the electrical wirings, apparatus, or equipment.
 - b. In case of emergency, DO NOT PANIC! THINK AND ORGANIZE YOUR ACT! Notify the electrician on duty for immediate action.
 - c. Consider all wires and electrical equipment live and dangerous which can cause serious injury. Report the presence of any exposed electrical wires to the electrician and to the supervisor. Warn fellow workers of the hazard.
 - d. Avoid leaving or putting electrical apparatus and extension cords on wet surfaces or near equipment in motion. All cords must be rolled and kept in the tool room after each use.
 - e. Never attempt to rescue anybody who comes in contact with live wires or cables by pulling him with bare hands. Use rubber gloves or thickly folded dry cloth to avoid touching the victim's skin. Remove wires in contact with the victim by using a dry stick. Try all means to shut the current off immediately.
- **RULE 20.** When using compressed air, the following should be observed:
 - a. Do not use to blow off dust or dirt from the body.
 - b. Do not direct opened hose of compressed air to anybody.
 - c. When opening compressed air outlet, be sure to hold the hose firmly and open the valve gradually.
 - d. All rubber hoses tapped to outlets should be securely tied to prevent accidental purging or exploding.

D. SPECIFIC RULES AT MET. R&D AND ASSAY LAB

- **RULE 1.** Before starting any equipment the following must be ensured:
 - a. All equipment should be properly guarded.
 - b. All guards be secure and safe
 - c. All repairs on the equipment should have been completed
 - d. All equipment should be free from foreign materials, tools, ladders, etc.
 - e. Warn all personnel in the area before starting any equipment

- f. Ensure that the main switch or circuit breaker is energized.
 - g. Finally, check the equipment for safety before pressing the start button. Remain near the "STOP" button until you are sure that the equipment is operating safely and satisfactorily.
- **RULE 2.** Wear or use Protective Safety gadgets at the Metallurgical Research & Development and Assay Laboratory. Such Personnel Protective Safety gadgets are:
 - a. Face shield
 - b. Eye goggles/Spectacles
 - c. Dust/Chemical respirators
 - d. Laboratory gowns/Aprons
 - e. Reagent gloves
 - f. Safety Shoes
- **RULE 3.** All personnel are required to use or wear protective safety gadgets and to exercise extra precautions and common sense when handling corrosive, toxic substances or any chemical reagents such as acids, strong alkalis and other chemicals. The following special rules shall be observed and strictly enforced:
 - a. Before using or transferring a reagent to another container or bottle, first check the labels of reagent bottles and ascertain that receiving container is correct, that is, it contains the same reagent or chemical. If not sure of the chemical or the character of chemicals to be used, better ask assistance from supervisors or from proper authority.
 - b. Addition of acids to samples especially during digestion process should always be done inside a Fume hood or Digestion Hood.
 - c. Add acid to water slowly with constant stirring. Never add water to acid, as to violent reaction will occur.
 - d. Certain chemicals like chlorates, nitrates, peroxides and alcohol exhibit properties, which are apt to produce violent reactions or ignite fire.
 - e. Liquid ammonia is highly volatile and very unstable, its container must be filled only 3/4 full for pressure allowance.
 - f. Never attempt to mix chemicals if not sure of the end result. First, consult a supervisor with knowledge about the work.
 - g. When in contact with corrosive substances, wash affected with a copious amount of water and seek immediate medication.
 - h. Handle toxic/poisonous substances with extra precaution. Label and store them separately and prevent unnecessary spill or pilferage.
 - i. Disposed off used chemicals or reagents in a suitable and safe place, dilute it with enough water and flush out any spills or traces of reagents on lavatory, laboratory tables or sewers properly.

SECTION 17

SAFETY RULES AND PRACTICES ON ELECTRICAL AND MECHANICAL INSTALLATIONS, MACHINERIES & EQUIPMENT

GENERAL REQUIREMENTS

- **RULE 1.** For all electrical installations and equipment, the current provisions of the Philippine Electrical Code, Parts I and II as approved by the Institute of Integrated Electrical Engineers shall be followed.
- **RULE 2.** For all mechanical installations and equipment, the latest provisions of the Philippine Mechanical Engineering Code shall be followed unless specified otherwise.
- **RULE 3.** Operators and maintenance of mechanical and electrical machineries and equipment shall, in all cases, be done by duly authorized persons.
- **RULE 4.** Safety device, tools and other apparatus used on any electrical or mechanical equipment or machineries shall be maintained in such condition that employees shall not be endangered.
- **RULE 5.** Machinery, equipment and tools shall be maintained in such condition that employees shall not be endangered.
- **RULE 6.** Safety valves, over speed trips, automatic cut-outs, fuses and other similar safety protective device shall be installed to protect equipment from damage, such device shall not be tampered with or altered and shall not be repaired or adjusted at any time without authorization.
- **RULE 7.** Machineries and equipment shall be equipped with appropriate guards which provide adequate protection for employees against contact with moving parts, or which prevents access by employees to the dangerous areas during operation.
- **RULE 8.** Loose clothing, long sleeves shall not be worn near or around revolving/rotating machineries, equipment and parts.
- **RULE 9.** A plan shall be kept at the mine showing the location of all permanently installed electrical machinery and apparatus in connection with the mine electrical system including cables, conductors, lights, motors, switches and transformers. This plan shall be updated as often as necessary.
- **RULE 10.** Where electricity is used underground mine, a systematic inspection and reporting of all wiring and equipment shall be made at least once a month.
- **RULE 11.** The rating of each piece of electrical equipment shall be stamped on it or inscribe on a metal plate suitably mounted and maintained upon the equipment. The inscription on the plate shall indicate voltage, capacity, full load current, speed and duty.
- **RULE 12.** No person shall be allowed to work on or with electrical equipment of any kind unless he has been previously instructed by an authorized person in connection with the performance of his duties.

- **RULE 13.** Care shall be taken to ensure good mechanical construction and neat workmanship in connection with all wiring installation of equipment.
- **RULE 14.** Warning signs shall be posted at points where there are possibilities of contact with live or moving parts. Only authorized employees shall be allowed to operate the electrical apparatus.
- **RULE 15.** Persons working in surface operations and location where hazards due to falling objects exist shall be required to wear safety non-metallic/non conductive hard hats and safety rubber boots or safety shoes.

ELECTRICAL SAFETY RULES

A. General Safety Precautions

- **RULE 1.** Ground circuit shall be regularly checked at reasonable intervals. Records of the same shall be kept as part of the mine record.
- **RULE 2.** Power lines that are no longer in use shall be removed or disconnected and properly secured from accidental connection.
- **RULE 3.** All electrical apparatus shall have adequate safeguard against fire and electrical shocks in case of failure of insulation.
- **RULE 4.** The operation and setting of instantaneous relays shall be checked regularly and the records there-from shall be maintained as part of the mine records.
- **RULE 5.** Parts of electrical equipment which produce arcs, sparks, flames or molten metals in normal operation shall be enclosed unless separated and isolated from combustible materials.
- **RULE 6.** Working areas shall be adequately illuminated in accordance with the standard illumination level as prescribed by the Philippine Electrical Code.
- **RULE 7.** In hazardous jobs such as working with or close to live conductors, at least two men shall work together. When it is necessary for an employee to leave his companion, the person left behind shall work only outside the hazardous area.

B. Electrical Construction and/or Installations

- **RULE 1.** Electrical construction and/or installations shall be made in accordance with the approved plan and shall be under the direct supervision of a professional Electrical Engineer.
- **RULE 2.** Temporary installations of electrical equipment, device, controllers, instruments and wiring shall be done under the direct supervision of an authorized person and the materials used shall conform with the approved specification.
- **RULE 3.** Installations of generators, meters, control equipment conductors, exposed live wires and moving parts shall be properly insulated and guarded.
- **RULE 4.** Cover guards, warning signs and other safety device shall be temporarily provided before leaving an unfinished job.

C. Substations

- **RULE 1.** Transformer station shall be kept locked against unauthorized entry and warning signs shall be posted. Lock shall be accessible and can be opened from the inside.
- **RULE 2.** Surface transformers shall be installed at least two(2) meters above the ground or enclosed in a vault, or by a substantial fence at least 1.5 meters high.
- **RULE 3.** Underground substation shall be placed in vault or fire proof rooms properly ventilated and arranged to permit easy escape of personnel in case of fire or explosion.
- **RULE 4.** Substation within thirty-five (35) meters from any mine openings shall be in a vault or fire resistant rooms.
- **RULE 5.** Surface substations containing oil-filled apparatus shall be isolated or separated from other equipment and buildings by fire-resistant barriers.
- **RULE 6.** The area immediately surrounding a substation shall be kept from grass, weeds and other combustible material.
- **RULE 7.** Adequate and appropriate fire protection equipment shall be provided in every substation.

D. Switchboard, Control Centers.

- **RULE 1.** Adequate illumination shall be provided both at the front and rear side of switchboard.
- **RULE 2.** Entrances to the backspace of any switchboards with exposed live parts shall be provided with barriers that are kept locked.
- **RULE 3.** Insulation mats or platforms shall be provided in front of switchboards.
- **RULE 4.** Only duly authorized person shall be allowed to work on switchboards and control rooms and warning signs shall be posted.
- **RULE 5.** Passageways and working places shall be cleared of any physical barrier that will prevent easy access to it.
- **RULE 6.** Good housekeeping shall always be maintained in control room.

E. Motors, Generators And Controlling Device

- **RULE 1.** Switch control shall be installed within sight of the motor operator and the equipment he operates.
- **RULE 2.** The control device of motors shall be placed at a safe distance from combustible materials.
- **RULE 3.** Motors shall be of the type approved in accordance with the condition where these are installed.
- **RULE 4.** Overload device, starting controls and compensators shall not be used as circuit breakers.
- **RULE 5.** Controls shall be identified or labeled and shall be equipped with indicating lights or meters to show when the motor load are energized.

F. Working on Energized Equipment.

- **RULE 1.** Rubber gloves, shield and other necessary safety equipment shall be used by employees working on energized electrical conductors or equipment operating at more than one hundred fifty (150) volts to ground.
- **RULE 2.** No work shall be done on energized electrical equipment or conductor operating at seven hundred fifty (750) volts AC, unless two or more experienced employees are present.
- **RULE 3.** In tunnels and manholes, no work shall be done on energized electrical conductor operating at one hundred fifty (150) volts to ground unless two or more experienced employees are present.
- **RULE 4.** Metal ladders shall not be used in proximity to energized electrical equipment.

G. Testing and Energizing Electrical Equipment

- **RULE 1.** Before starting to test-run electrical equipment, branch circuit protective device and circuit grounding system shall be checked if properly installed and any waste materials and tool shall be removed.
- **RULE 2.** Before energizing the power line of an equipment, the protective device and controllers shall first be energized and checked for proper settling and operations.
- **RULE 3.** Testing and energizing shall be carried out with proper instruments and tools such as merger, ammeter, volt-meter, insulation stick, insulation gloves, and the like for protection against electrical hazard, accidental damage or injury.
- **RULE 4.** The circuit shall be checked completely before power is applied for the first time by an authorized supervisor.
- **RULE 5.** Motors and testing instruments shall be checked of its capacity before using.
- **RULE 6.** High voltage circuit on the primary side shall be tested on the low voltage side of an instrument transformer.
- **RULE 7.** Approved tester shall be in testing ground or faulted windings and commutator segment assembly
- **RULE 8.** Circuit shall be tested with an approved testing equipment before energizing.
- **RULE 9.** Before breaking the circuit of current transformer secondaries, the loads shall be grounded and effectively short circuited between the transformer coil and the points at which the circuit is to be broken.
- **RULE 10.** Before power is applied for the first time to potential transformer, portable meters and the like whether connected temporarily or permanently, all necessary checks shall be undertaken.

H. Repairs and Maintenance

- **RULE 1.** Power shall be shut off when making examinations, repairs or alterations of electrical installations. When this is impractical, the approval of the supervisor shall be obtained and all necessary precautions shall be taken.
- **RULE 2.** Employee shall be required to "lock-out or block open" the control device, disconnected open type switches, and remove fuses before examining, repairing or working on

circuits, electrical equipment and other electrical installation. Lock shall be removed only after a thorough investigation by the supervisor-in-charge.

- **RULE 3.** If motors are running, safety switch shall not be opened. The magnetic controller shall be de-energized first before opening.
- **RULE 4.** Repairs and maintenance shall be made according to standard procedures and manufacturers specifications.
- **RULE 5.** Removal and replacement of fuses shall be done with a fuse-holder or with approved rubber gloves. Fuses and disconnectors shall not be pulled unless loads on the circuit are removed. Only fuse in a cartridge shall be used.
- **RULE 6.** During storm, it shall be prohibited to work or stay under any high voltage distribution lines or transmission lines.
- **RULE 7.** Employees shall be prohibited to wear rings, jewelries, watches or metal chains and such other articles which may be caught in by moving parts of machineries of which may come in contact with electrical circuits.
- **RULE 8.** Covers of protective device of electrical circuits and machinery such as enclosed types switches, circuit breakers and starters shall always be closed before switching "on".

I. Working on Electric Post or Poles

- **RULE 1.** Posts shall be free of any defects. Defective posts shall be supported until replacement is made.
- **RULE 2.** Before starting to work on live circuits in electric posts, rubber blankets or shields shall be placed over adjacent ground wires for protection while working on defective wires.

J. Conveyor System

- **RULE 1.** Belt and chain drive units shall:
 - a) Be free from excessive accumulation of dusts and other inflammable materials.
 - b) Be well lighted at loading and unloading points
 - c) Be provided with warning or signal device at both ends
 - d) Have no power conductors installed on the clearance side of the belt.
 - e) Be provided with circuit breakers and switch control
 - f) Have the frames of motor and metal cases of control well grounded.
- **RULE 2.** Elevated conveyors requiring frequent access shall be provided with footwalks or platforms along the entire length and equipped with standard railings.
- **RULE 3.** Walkways shall be cleared of ore spillage, machine parts and other materials.

- **RULE 4.** Conveyors shall not be used in transporting men other than raw or finished materials.
- **RULE 5.** When a conveyor is in operation, it shall be prohibited to climb over or pass under unprotected conveyor belt, clean the deck, pulleys or rollers.
- **RULE 6.** Emergency trip cords or push button switches shall be installed on all conveyor systems and shall always be in good working order. Any defects shall be repaired immediately.
- **RULE 7.** No repair or servicing shall be done on conveyor while in operation.

K. Battery Rooms and Storage Battery Handling

- **RULE 1.** Smoking, welding and use of open flames and sparks shall be prohibited in battery charging rooms. Warning signs shall be posted.
- **RULE 2.** Battery rooms or charging areas shall be provided with adequate ventilation.
- **RULE 3.** The control switch shall be opened first before connecting or disconnecting battery charging cords or loads.
- **RULE 4.** Rubber gloves, eye and face protections shall be worn when handling electrolyte solution.

L. Illumination

- **RULE 1.** Working areas shall be illuminated according to standard lighting levels.
- **RULE 2.** Incandescent lamps shall be installed in such a way that these do not come in contact with combustible materials.

MECHANICAL SAFETY RULES

A. General Safety Precautions

- **RULE 1.** Machine having a grinding, shearing, punching, cutting, rolling, mixing or similar action in which a person might accidentally come in contact with shall be properly guarded.
- **RULE 2.** Machines shall not be operated unless these are in good order and all safeguards and safety device are in place and in good working condition.
- **RULE 3.** No person shall be permitted to operate any machines or tools unless he is familiar with it, equipped with appropriate personnel protective device, and duly authorized to do so.
- **RULE 4.** Safe and indicating device shall be properly maintained and checked periodically from damage and deterioration.

B. Pumps, Air Compressors & other Stationary Equipment

- **RULE 1. On Pumps**
 - a) Exposed rotating couplings of pumps shall be adequately guarded and when guards are removed for oiling or repairing these shall be replaced before the pumps are out in operation.
- **RULE 2. On Compressors**

- a. Where a gasoline or diesel engine is used to drive a compressor, pipe of suitable length for exhaust gases from the engine shall be placed.
- b. If repairs or adjustments are to be made on a compressor, header shall be closed and that no air pressure remains in the cylinder and all relief valves shall be opened. Starting equipment shall be tagged and locked out.
- **RULE 3.** On other stationary equipment
 - a. Repairs or adjustments shall not be made on any machinery until the power has been cut off and the machinery blocked securely against all motion.

C. Internal Combustion Engine

The ASME and Philippine Mechanical Engineering Code shall govern the inspection and installation of internal combustion engine.

D. Standard Railing Guards, Toe Boards

- **RULE 1.** On Construction
 - a. Railing Guards
 - 1. Railing guards shall be constructed in a permanent and substantial manner of wood, pipe metal structure or other material of sufficient strength.
 - 2. The dimensions of railings, posts, anchoring and framing members shall be such that the completed structure is capable of withstanding a load of at least one hundred (100) kilograms applied in any direction at any point of the top rail.
 - 3. Sharp corners of railing guards shall be rounded and smoothed.
 - 4. Standard railing guards shall be at least one (1) meter in height.
 - 5. Standard railing guards shall have post not more than two (2) meters apart and an intermediate rail halfway between top rail and the floor.
 - b. Toe Boards
 - 1. Toe boards shall be at least fifteen (15) centimeters in height, made of wood, steel or other suitable materials and securely fastened in place.
- **RULE 2.** On locations and Equipment

Standard railings and toe boards provided for in the preceding rule thereof shall be placed in proper locations or in such other locations as may be prescribed by the enforcing authorities.

- a) Floor and Wall openings
 - 1) Ladderway and stairway floor openings shall be guarded on all exposed sides, except at the entrance to the opening, by permanent railings and toe boards.
 - 2) Hatchway, chute, pit and trap floor openings shall be guarded by removable with toe boards on all exposed sides, or by flush hinged cover of adequate strength.
 - 3) Manhole of floor openings shall be guarded with covers of adequate strength which need not be hinged.
 - 4) Floor openings into which persons may accidentally walk on by covers securely held in place and leaving no opening more than two and a half (2.5) centimeters in width.
 - 5) Wall openings less than one meter from the floor having a height of at least 75 centimeters and 45 centimeters wide from which there is drop of more than 2 meters shall be solidly enclosed or guarded by fixed or removable rails.

- b) Overhead Walks, Runways and Platforms
 - 1) Walkways, runways, working platforms and open side floor 2 meters or more above floor or ground level, except small platform used for motors and similar equipment which do not afford standing space for persons, shall be guarded on all open sides by standard railings and toe boards.
 - 2) Where railings may induce workers to take "shortcuts" from long detour, additional railing components shall be provided where stairway is not possible.

- c) Mechanical Transmission Equipment
 - 1. Power transmission elements which are exposed to possible personal contact shall be adequately guarded with standard railings or cover plates if these are located less than 240 centimeters above floor level.
 - 2. Vertical or inclined drives, rope or link drives shall be enclosed up to upper pulley, or to a height not less than 240 centimeters above floor or platforms or shall be guarded with standard railings.

- d) Agitators, Mixing Machines and Drum Mixers
 - 1. When the top of an open agitator tank, heater tank or paddle tank is less than 1 meter above the floor or working level, adequate standard railings shall be installed on all open sides.
 - 2. Service walkways for access drives or valves, or for taking samples shall be provided on both sides with standard railings and toe boards.

- e) Crushers, Grinding Mills and Pulverizers
 - 1. Where enclosure are not practicable on moving parts of crushers, grinding mills and pulverizers which constitute a hazard, such parts shall be surrounded by standard railings.

- f) Ball, Rod, Tube and Compartment Mills

1. Standard machinery guards or standard railings shall be provided on both sides of the ball, rod, tube or compartment mills with bottom less than 240 centimeters above the floor level.
- g) Vats and Tanks
1. Vats, pans and open tanks containing hot, corrosive or poisonous liquid with openings on top less than 1 meter above the floor or working level shall be guarded on all sides by enclosure or standard railings.
- h) Furnace, Kilns and Ovens
1. Pits or floor openings in furnaces, kilns or even when not in use, shall be protected either by covers or by standard guard rails and toe boards.
 2. Platforms, walkways and stairways on furnaces, kilns and ovens shall be provided with standard railings and toe boards on all sides.
- i) Other machines not especially mentioned such as classifier, etc. shall be properly guarded to prevent employees and materials from accidentally falling into or getting in contact with the moving parts of the machine.

SECTION 18

SPECIFIC RULES ON MATERIALS STORAGE AND HANDING & TRANSPORT

A. WAREHOUSING

- **RULE 1.** Smoking shall be absolutely prohibited in storage areas where flammable materials are stored and a sign to that effect shall be conspicuously displayed.
- **RULE 2.** One shall use only properly designed bin ladders.
- **RULE 3.** Aisles shall be of appropriate width and free from obstruction.
- **RULE 4.** Good housekeeping shall always be observed.
- **RULE 5.** Highly combustible materials such as paints, acids, chemicals and the like shall be stored in separate building.
- **RULE 6.** Fire protective equipment shall always be adequately provided.
- **RULE 7.** The FIRST-IN-FIRST-OUT (FIFO) basis in receiving/issuing stocks to/from storage area shall be observed.
- **RULE 8.** Only authorized persons shall be allowed to enter acid and chemical bodegas.

B. STORAGE

- **RULE 1.** Heavy, slender objects if stored upright shall be well secured against toppling down.
- **RULE 2.** Rolling objects when stored on open shelves shall be properly blocked or wedged.
- **RULE 3.** In multiple decking, heavier material shall be stored on the lower levels. Small and easily handled objects shall be in the upper decks.

- **RULE 4.** Bagged materials not delivered pelletized and strapped shall be piled cross-tied with the bag mouths towards the center of the pile.
- **RULE 5.** Materials shall not obstruct fire extinguishers, first-aid equipment, lights, and electric switches and fuse boxes.
- **RULE 6.** Make shift of bins shall be strong and sturdy.

C. HANDLING

- **RULE 1.** Proper method of lifting and carrying shall be used. Help for heavy load shall be obtained.
- **RULE 2.** When two or more men are lifting objects together, one man shall give the signal to lift or lower in unison. They shall keep in step while carrying.
- **RULE 3.** One shall watch finger, keep clear of pinch points, especially when carrying materials through passageways.
- **RULE 4.** Load of lifting equipment and transport truck shall be limited to its capacity.
- **RULE 5.** Transport trucks shall be equipped with fire fighting appliances.
- **RULE 6.** Use, adjust and repair equipment only when authorized.
- **RULE 7.** Rope, chains, and slings
 - a) Specific safety precautions shall apply to using and steering rope, rope slings, wire rope, chain and chain slings.
- **RULE 8.** Flammable and combustible liquids
 - a) Only trained employees shall load or unload tanks containing flammable liquids.
 - b) Tank trucks, tank trailers and tank semi-trailers used for transportation of flammable liquids shall be constructed and operated according to standard.
- **RULE 9.** Objects with specific shapes
 - a) Boxes shall be handled by grasping the alternate top and bottom corners and draw a corner between the legs.
 - b) Locked materials shall be grasped at opposite corners.
 - c) Sheet metal shall be handled with leather gloves, hand leathers, or gloves with metal inserts. Bundles of sheet metal shall be handled with power equipment.
 - d) Window glass or other sheet glass shall be handled with gloves or hard leathers while wrists and forearms shall be covered with long leathery sleeves.
 - e) Long objects, like pipe, bar stock, or lumber shall be carried over padded shoulder, with the front hand held as high as possible except when passing under low power lines.
 - f) Heavy circular flat objects (such as car wheels or tank covers) shall be handled by power equipment designed for the purpose.
- **RULE 10.** The FIRST-IN-FIRST-OUT (FIFO) basis in receiving/issuing stocks to/from storage area shall be observed.

D. Transport of Hazardous Chemicals & Reagents

- **RULE 1.** Shippers must first inspect and ensure that all chemicals and reagents are properly sealed, labeled or identified and in good condition before these are loaded on transport vehicle.
- **RULE 2.** Bottled chemicals should be crated and palletized before shipment - cushion materials must be used to avoid jarring movements during transport.
- **RULE 3.** As much as possible, chemicals and reagents must be covered with plastics inside the crate for protection from rain,
- **RULE 4.** Crated chemicals and reagents must be properly secured when loaded on vehicles.
- **RULE 5.** As much as possible, one piling level must be observed during loading.
- **RULE 6.** Transport of reagents like cyanide must never be combined with acids.
- **RULE 7.** Handlers must wear hand gloves during handling of chemicals and reagents.
- **RULE 8.** Driver of transport vehicle must be properly informed to bring awareness to him that chemicals and reagents are high-risk cargo.

SECTION 19

FIRST AID

No employee who has been ill or injured will be permitted to return to work without a Medical Release signed by a Doctor.

The treatment procedures that are presented in this section are based on pre-hospital care or treatment that is done outside the hospital or before reaching the hospital. This section should be updated every now and then, based on accepted rules or guidelines for basic life support and first aid.

BASIC LIFE SUPPORT is the foundation for saving lives following cardiac arrest. If it is based on the American Heart Association (AHA) guidelines, there will updates or changes every five (5) years. The last release of guidelines was October 2010, the next update will be on October 2015.

- One of the changes in the basic life support sequence of steps from “ airway, breathing and chest compression” (ABC) to “ chest compression, airway, and (CAB) breathing” for adults, children and infant except newborns.
- “Look, listen and feel” has been removed because it is inconsistent with the new sequence and time consuming.
- To encourage hands-only (compression) CPR for untrained lay rescuer. A different steps for CPR was formulated for healthcare providers (doctors, nurses, paramedics, EMT’s and the like)
- The changes in Adult Chain of Survival

I. Immediate recognition and activation of emergency medical services



Immediate recognition of cardiac arrest: Immediate recognition of Stroke:

- Sudden numbness of the face or facial
 - There is chest discomfort or drooping, arm or arm drift, numbness of the pain leg especially on one side of the body
 - The pain can extend to the back ✓ Sudden trouble speaking, slurred speech or of the neck, jaw, one or both confusion
- arms, stomach ✓ Sudden trouble walking, loss of balance or
- Difficulty of breathing with or coordination without pains ✓ Dizziness
 - Cold sweats, nausea ✓ Sudden severe headache with no known cause especially for persons above 45 years old

II. Early Cardio Pulmonary Resuscitation (CPR)

- ✓ CPR should be started if the person is unresponsive. Check responsiveness by asking the person if he/she is okay or alright, and by gently shaking or tapping the shoulder simultaneously.
- ✓ Has no breathing or has agonal breathing.
- ✓ If in doubt, especially if the boy is still warm

WHEN TO STOP

- ✓ When the patient STARTS breathing normally
- ✓ Patient is TRANSFERRED to a person trained in BLS
- ✓ You are OUT of strength
- ✓ If a PHYSICIAN is present and gives direction to continue
- ✓ SCENE BECOMES UNSAFE

WHEN NOT TO START

- ✓ Patient has valid DO NOT RESUSCITATE (DNR) or DO NOT ATTEMPT TO RESUSCITATE (DNAR) order
- ✓ Patient has definitive signs of death: livor mortis or dependent lividity (discoloration especially the part of the body closer to the ground, rigor mortis or stiffening of the body, putrefaction decomposition, mortal damage or decapitation
- ✓ Attempts to perform CPR would place the rescuer at risk of physical injury

DON'T'S IN CPR

- ✓ Bender
- ✓ Jerker
- ✓ Star gazer
- ✓ Rocker
- ✓ Double crosser
- ✓ Lifter
- ✓ Massager
- ✓ Bouncer

STEPS IN CPR

2. Survey the scene; always remember that your safety comes first.
3. Introduce yourself and acquire consent to help. If the patient is alone, and there is no one to ask consent from, unconscious or not in a normal state of mind help the person, this is called implied consent.
4. Check for responsiveness.
 - ✓ Verbally, by asking the patient/person he is alright or ok. Your voice should be loud enough to be heard.
 - ✓ Mechanically, by gently shrugging or tapping the shoulder.
 - Check verbally and mechanically, some patients can hear but cannot feel, or the other way around, they can feel but they cannot hear. Be sure that you use language or dialect that person/patient understands.
5. A) If the person is responsive, check for any other injuries.
 - Responsiveness means the person reacts to either verbal or mechanical stimuli. E.g. as you approach he opens his eyes, he moans, or moves

B) If the person is unresponsive, immediately call for help.

 - Unresponsive means there are no reaction from the patient, but it does not mean he is not breathing.
6. For lay rescuers SCAN THE CHEST FOR ANY MOVEMENT, for healthcare(nurses, doctors, ert's, paramedics, ambulance crews, caregivers) providers CHECK FOR PULSE FOR NOT MORE THAN TEN (10) SECONDS.
 - ✓ If there is no chest movement, no breathing or no normal breathing or only agonal breathing, or no pulse PERFORM CPR using the CAB method.
7. Do Cardio Pulmonary Resuscitation (CPR)
 - ✓ Compression site will be on the center of the chest. Make an imaginary line between two nipples and place the heel of the palm on the center.

- ✓ Start with 30 compressions, then give two (2) rescue breaths, do it five times (5) in two minutes or at least one hundred (100) compressions in one minute (1). Doing one cycle here means performing 30 compression-2 rescue breath-5times.
 - ✓ However in cases that there are two(2) rescuers, the cycle would be fifteen (15) compressions to two (2) rescue breaths and do it ten (10) times
8. Re-assess the patient every after 5 cycles. If the patient has not returned to its normal breathing continue performing CPR.
- Do not dot perform rescue breathing for suspected cyanide poisoning especially if ingested.

SOFT TISSUE INJURIES

The skin is our first line of defense against external forces and infection, injuries ranges from simple bruises and bruises to serious lacerations an amputation. In all instances, you must control bleeding, prevent further contamination to decrease the risk of infection and protect the wound from further damage. It protects the body by keeping pathogens out, water in. it is the major body organ for regulating temperature(in cold environment the blood vessels constrict, diverting blood away from the skin and decreasing the amount of heat that is radiated from the body's surface, it hot environment the blood vessels dilate.

Anatomy of the Skin; there are two principal layers:

1. epidermis is the tough, external layer that forms watertight covering for the body
2. dermis is the inner layer of the skin contains the structures that give skin its characteristic appearance: hair follicles, sweat glands an sebaceous glands: blood vessels in the dermis provide the skin with nutrients and oxygen, there are also specialized nerve endings within it
 - ✓ hair follicles-are small pores that produce hair, there is one follicle for each hair
 - ✓ sweat glands-acts to cool the body
 - ✓ sebaceous glands-produces sebum an oily material that waterproof the skin and keeps it supple

The skin covers all openings in our body except for mouth, nose, anus and vagina because it is lined with mucous membranes(these are membranes like skin is a protective barrier against bacterial invasion, it differ from the skin in that they secrete a watery substance that lubricates the opening, therefore it is moist, while skin is dry.

TYPES OF SOFT TISSUE INJURIES

Soft tissues are often injured because they are exposed to the environment, there are three types

1. CLOSED INJURIES in which soft tissue damage ours beneath the skin or mucous membrane but the surface remains intact
2. OPEN INJURIES there is a break in the surface of the skin or the mucous membrane, exposing deeper tissue to potential contamination. (Contamination – describes the presence of infectious organisms (pathogens) or foreign bodies such as dirt, gravel, or metal. There are four ((4) types of open injuries lacerations, abrasions, avulsions and penetrating wounds.
3. BURNS. In which the tissue receives more energy that it can absorb without injury. The source of this energy can be thermal heat, frictional heat or nuclear radiation.

THE SIGNIFICANCE OF BLEEDING

The blood loss of greater than 20% of blood volume cannot be tolerated by the body or is fatal. If blood loss occurs rapidly the person may develop hypovolemic shock, a condition which low blood volume results in inadequate perfusion and even death. Averaging adults has 5 to 6 liters of blood, or approximately 70 ml per kilogram of body weight.

Hypovolemic Shock: a condition in which low blood volume results in inadequate perfusion or even death.

Perfusion: is the circulation of blood within an organ or tissue in adequate amount to meet the cells current needs for oxygen, nutrients and waste removal.

Consider bleeding to be serious if the following conditions are present:

- It is associated with a significant mechanism of injury
- The patient has a poor general appearance.
- Assessment reveals signs and symptoms of hypo perfusion shock. There is tachycardia or pulse with a rate of 100 beats per minute, weakness, fainting, or dizziness at rest, thirst, nausea and vomiting, cold, moist clammy skin, shallow rapid breathing, dull eyes, slightly dilated pupils that are slow to respond to light, decreasing blood pressure and pulse, altered mental status.
- There is significant amount of blood loss or hypovolemic shock.
- The blood is rapid.
- Bleeding cannot be controlled.

Typically bleeding from an open artery (arterial bleeding) is brighter red because it is high in oxygen and spurts in time with pulse. Blood from an open vein (venous bleeding) is darker because it is low in oxygen, however it is easier to manage because it is under less pressure and does not spurt. Bleeding from damaged capillary is dark red and oozes from a wound steadily but slowly. On its own bleeding tends to stop within about 10 minutes or blood clots.

Treat a closed tissue injury by applying the acronym RICES:

- ✓ Rest – keep the patient as quiet and as comfortable as possible
- ✓ Ice (or cold pack) slows bleeding by causing blood vessels to constrict and also reduces pain
- ✓ Compression – over the injury site slows bleeding by compressing the blood vessels.
- ✓ Elevation of the injured part just above the level of the patient's heart decreases swelling.
- ✓ Splinting decreases bleeding and also reduces pain by immobilizing a soft tissue injury or an injured extremity.

In addition to these measures to control bleeding and swelling, you should also be alert for signs of developing shock, including anxiety or agitation, changes in mental status, increased heart rate, increased respiratory rate, diaphoresis, cool and clammy skin and decreased blood pressure. Any or all these signs may indicate internal bleeding resulting from injuries to internal organs. If patient appears to be in shock, you should place the patient in shock position (supine with legs elevated 6" to 12"); or if

a patient is on a stretcher, use the Trendelenburg position (on backboard or stretcher with the feet 6" to 12" higher than the head) *provide supplemental oxygen

Treat an open injury by applying the following steps:

- First be sure to protect yourself by following BSI precautions. Remember to make sure that the patient has an open airway and *administer high-flow of oxygen.

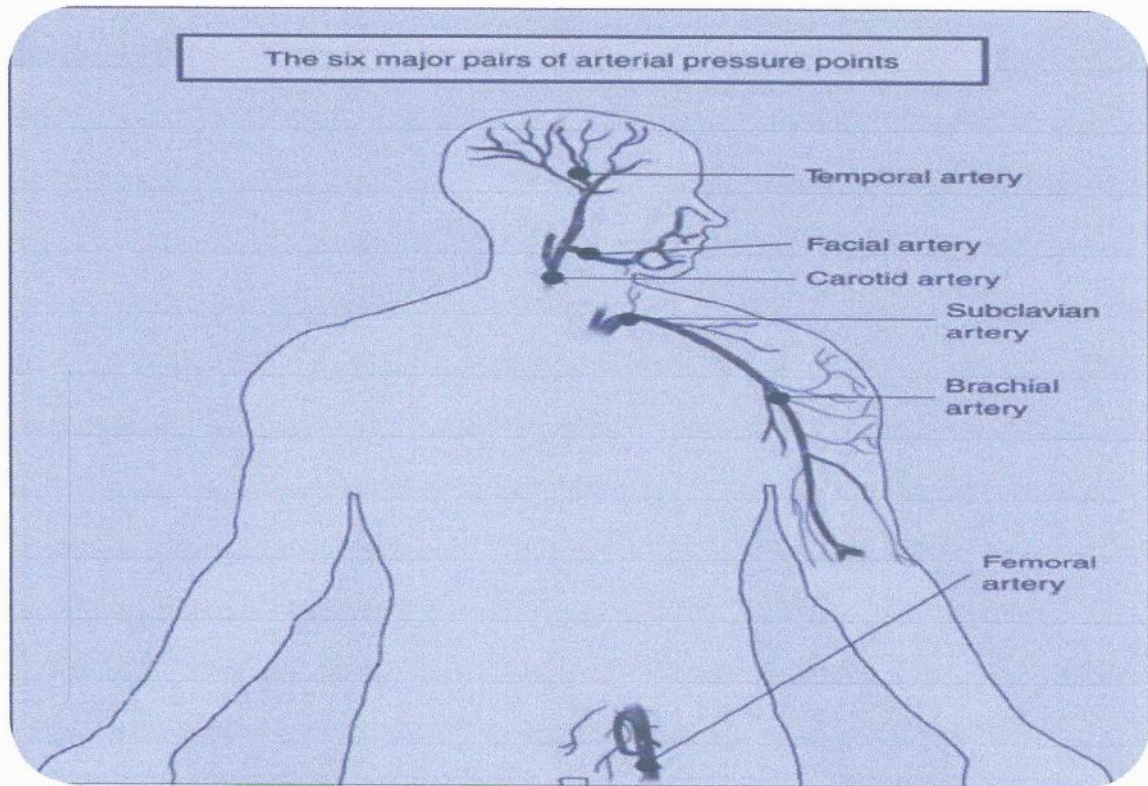
Body Substance Isolation (BSI)- this includes gloves, gowns, masks, respirators and barrier devices. By using BSI precautions you can reduce your risk of exposure or contact with blood, body fluids, tissues or airborne droplets by direct or indirect contact.

High flow of oxygen means administering medical oxygen via a non-rebreathing mask (NRB), regulation is 10 to 15 liters per minute.

- 1) Apply a dry, sterile dressing over the entire wound using **direct pressure** to the bleeding site. Hold uninterrupted pressure for about 5 minutes.

Sterile means free from living organisms e.g bacteria

- 2) **Elevate** the extremity to 6" to 12" often stops venous bleeding.
- 3) **Maintain** the pressure and secure dressing with a bandage (triangular, roller). If bleeding recurs or continues, leave the original dressing in place. Apply a dressing on top of the first and secure it with another bandage.
- 4) If a wound continues to bleed despite use of direct pressure, try placing additional pressure over proximal **pressure point**.



- 5) Splint the extremity to stabilize the injury even if there is no suspected fracture, to help minimize movement, further control the bleeding and keep the dressing in place.
- All open wounds are assumed to be contaminated and present a risk of infection. By applying a sterile dressing you are reducing the risk of further contamination. Rubbing, brushing or washing an open wound can cause additional bleeding, in general it is better not to remove material from an open wound. Chemical burns and contamination should be flushed to remove remaining chemicals. A patient with significant bleeding is a risk for hypovolemic shock.

Treat the following injuries by applying the following steps:

- A. **Abdominal Wounds** – an open wound in the abdominal cavity may expose internal organs or as it is called evisceration.
- ✓ Cover the wound with sterile gauze moistened with a sterile saline solution then secure it with bandage and tape
 - ✓ Flex the knee to relieve pressure on the abdomen, if the legs and knee are uninjured or there is no suspicion of spinal cord injury
 - ✓ Do not touch or move the exposed organs
 - ✓ Do not use material that is adherent or loses its substance when wet (ex: toilet paper, facial tissue, paper towels or absorbent cotton).

B. Impaled Objects

- ✓ Stabilize the impaled body part. Do attempt to remove or move the object unless it is impaled through the cheek causing airway obstruction, or if the object is in the chest and interferes with CPR. Removing an impaled object may cause more bleeding or damaged nerve, blood vessels or muscles within the wound
- ✓ Remove any clothing covering the injury. Control bleeding and apply a bulky dressing. To prevent further injury, manually secure the object by incorporating it into the dressing.
- ✓ Protect the impaled object from being bumped or moved during transport by taping a rigid item such as a plastic cup, a section of a plastic water bottle, or a supply container over the stabilized object and its bandaging.

C. Amputations

- ✓ With complete amputation, make sure to wrap the part in a sterile dressing and place it in a plastic bag. Put the bag in a cool container filled with ice, do not immerse in the ice and be sure to transport amputated part together with the patient to the hospital. ✓ Apply tourniquet:
 1. Fold a triangular bandage ((4" wide)
 2. Wrap the bandage around the extremity twice. Choose an area only slightly proximal to the bleeding, to reduce the amount of tissue damage to the extremity.
 3. Tie one knot in the bandage. Then place a stick or rod on top of the knot, and tie the ends of the bandage over the stick in a square knot
 4. Use the stick as a handle, and twist it to tighten the tourniquet until the bleeding has stopped; then stop twisting
 5. Secure the stick in place, and make the wrapping neat and smooth.
 6. Write "TK" and the exact time (hour and minute) that you applied the tourniquet on a piece of adhesive tape. Use the phrase "time applied". Securely fasten the tape to the patients forehead. Notify hospital personnel on your arrival that your patient has tourniquet in place.
 7. *As an alternative, you can use a blood pressure cuff an effective tourniquet. Position the cuff proximal to stop the bleeding. Leave the cuff inflated. the bleeding point, and inflate it just enough to stop bleeding.
 - ✓ Do not loosen the tourniquet after you have applied it. Hospital personnel will loosen it once they are prepared to manage the bleeding.

D. Neck Injuries or Upper Chest or upper abdomen –

- ✓ Apply manual pressure, however do not compress both carotid vessels at the same time.
- ✓ Cover the wound with an occlusive dressing.

Use a sterile dressing, vaseline gauze or aluminum foil, tape its four side or seal three sides with the fourth left open as a flutter valve. If the veins in the neck is open to the environment, they may suck in air and can cause air embolism this is a life threatening condition,. This prevents air from being sucked into the chest through the wound, accumulation of air into the pleural space can is dangerous, and this is commonly called a collapsed lung.

Treat burn by applying the following steps:

1. Follow BSI precautions
2. Move the patient away from the burning area. If any clothing is on fire, wrap the patient in blanket, then remove any smoldering clothing and or jewelry
3. Immerse the area in cool, sterile water or saline solution, or cover with a clean, wet, cool dressing if the skin or clothing is hot. This not only stops burning, it also relieves pain. Do not keep the affected part under water for more than 10 minutes, prolonged immersion may increase the risk of infection and hypothermia.
4. Provide high flow of oxygen. More victims die of smoke inhalation than of skin burns, patient who has facial burns has inhaled smoke or fumes may experience respiratory distress.
5. Cover the patient with clean blanket.
6. Estimate burns severity by using the rule of nine's and check for other traumatic injuries
7. Treat patient for shock
8. Provide prompt transport

Treat chemical burns by applying the following steps:

- ✓ Wear the appropriate chemical resistant gloves or gown. Be very careful not to get any chemical, dry or liquid on yourself or on your clothes
- ✓ Remove dry chemical by brushing it off first before flushing. A dry chemical that is activated by contact with water may damage the skin more.
- ✓ Remove patient's clothing, including shoes, stocking, and gloves and any jewelry or glasses because there may be small amounts of chemicals in the creases.
- ✓ Immediately began to flush the burned area with large area amounts of water, never direct a forceful stream of water, extreme water pressure may injure the burned skin.
- ✓ Continue flooding the area with gallons of water for 15 to 20 minutes after the patient says the burning pain has stopped.

Treat the electrical burns by applying the following steps:

- ✓ Never attempt to remove someone from an electrical source unless you are specially trained to do so. Make certain that the power line is turned is turned off. Always assume that any power line is live.
- ✓ Always look for both entrance and exit wounds. Place a dry sterile dressing on all burn wounds and splinting all suspected fractures.
- ✓ Monitor the patient closely for respiratory or cardiac arrest. * give supplemental oxygen. Immediately perform CPR if indicated.
- ✓ Provide prompt transport to the hospital.

Treat bites by applying the following steps:

- ✓ Promptly immobilize the area with splint or bandage.
- ✓ Place a dry sterile dressing over the wound.

- ✓ Provide transport to the emergency department for surgical cleansing of the wound and anti-biotic therapy.
- ✓ Do not apply ice or cold compress in suspected snake bites only. Remember that swelling in snake bites may indicate that the snake is venomous.

The mouth of human and animals contains an exceptionally wide range of virulent bacteria and viruses. All bites should be considered contaminated and potentially infected wound that may require anti-biotics, tetanus pro-phylaxis and suturing.

Treat nose bleeding or epistaxis by applying the following steps:

- 1) Follow BSI precautions
- 2) Help patient to sit, leaning forward, with the head tilted forward. This position stops the blood from trickling down the throat or being aspirated into the lungs.
- 3) Apply direct pressure for at least 15 minutes by pinching the fleshy part of the nostrils together. This is the preferred method. This technique may also be self administered.
- 4) Apply ice over the nose. Do not apply the ice directly to the skin use ice packs or wrap it with cloth.

Bleeding from the nose or ears following a head injury or traumatic injury may indicate a skull fracture. In these cases you should NOT attempt to stop the blood flow. Applying excessive pressure to the injury may force the blood leaking through the ear or nose to collect within the head. This may increase the pressure on the brain and possibly cause permanent damage.

If you suspect skull fracture: Cover the bleeding site with a sterile gauze pad to collect blood and help contaminants away. Apply light compression by wrapping it loosely with bandage.

- 5) If the bleeding cannot be controlled, and if the patient has a history of frequent nosebleeds, or if there is a significant amount of blood loss, transport the patient immediately.

MUSCULOSKELETAL INJURIES

FRACTURE –is a broken bone. More precisely, it is a break in the continuity of the bone, often recurring as a result of an external force. If the overlying skin is not damaged it is a close

fracture, if there is a wound that is caused by the same blow that fractured the bone or the broken bone lacerating the skin.

Signs and symptoms;

- Deformity – the limb may appear to be shortened, rotated or angulated at a point where there is no joint. Always use the opposite limb as your comparison.
- Tenderness – point tenderness on palpation in the zone of injury is the most reliable indicator of an underlying fracture. Be sure to wear gloves if there are any open wounds.

- Guarding – an inability to use the extremity is the patient’s way of immobilizing it o minimize pain. The muscles around the fracture contract in an attempt to prevent any movement of the broken bone.
- Swelling – rapid swelling usually indicates bleeding from a fracture and is typically followed by substantial pain. Often he swelling is severe
- Bruising – fractures are always associated with discoloration (ecchymosis). Bruising may be present after almost any injury and may take hours to develop.
- Crepitus – a grating or grinding sensation, it can be felt and sometimes be heard when fractured bone ends rub together.
- False motion - also called as free movement, this is a motion at a point in the limb where there is no joint. It is a positive indication of a fracture.
- Exposed fragment – an open fracture, bone ends may protrude through the skin or be visible within the wound.
- Pain - pain along with tenderness and bruising, commonly occurs in association with fractures.

DISLOCATION – is a disruption of a joint in which the bone ends are no longer in contact.

Sign and symptoms:

- Marked deformity
- Swelling pain that is aggravated by any attempt at movement.
- Tenderness on palpation
- Virtually complete loss of normal joint motion
- Numbness or impaired circulation to the limb or digit

SPRAIN – is a joint injury in which there is both some partial or temporary dislocation of the bone ends and partial stretching or tearing of the supporting ligaments.

Signs and symptoms:

- Point tenderness can be elicited over the injured ligaments.
- Swelling and ecchymosis appear at the point of injury to the ligaments as a result of torn blood vessels.
- Pain prevents the patient , and aply local pressure to control bleeding from moving or using the limb normally.
- Instability of the joint is indicated by increased motion, especially at the knee, however this may be masked by severe swelling and guarding.

STRAIN - or muscle pull is a stretching or tearing of the muscle, causing pain, swelling and bruising of soft tissues in the area.

Treat fractures, dislocations, sprains and strains by applying the following steps:

1. **Do not move the patient before splinting** unless there is an immediate hazard to the patient and yourself. Completely cover open wounds, with a dry sterile dressing and do not replace protruding bones. Remove clothing from the area of any suspected fracture and dislocation so that you can inspect the extremity for DEFORMITY, OPEN WOUNDS, TENDERNESS, SWELLING (DOTS).
2. **Apply the appropriate padded splint** to prevent local pressure and discomfort to the patient. While applying splint be sure to maintain manual stabilization to minimize movement of the injured limb. Patients with lower extremity injuries should lie supine with the limb elevated about 6" to minimize swelling. For any patient, be sure to position the injured limb slightly above the level of the heart. Never allow the injured limb to dangle from the edge of the backboard. Always assess pulse, motor and sensory function before and after the application of splints and monitor it continually.
 - In suspected fracture of any bone, be sure to stabilize the joints above and below
 - In suspected injuries in and around the joints stabilize the bones above and below
 Pulse: palpate the pulse distal to point of Capillary refill: note and record the skin color injury. First, palpate the radial pulse in the identifying any pallor or cyanosis. Then apply upper extremity. second, in the lower firm pressure to the tip of the fingernail or extremity, palpate the posterior tibial and toenail which will cause the skin to blanch (turn dorsalis pedis pulses white) if normal color does not return within 2 seconds after you release the nail, you can assume that circulation is impaired. this test is typically recommended for use in children, although it can be used in adults also. Sensation : in the hand, check the feeling on Motor function: evaluate the muscular activity the flesh near the tip of the index finger and when the injury is proximal to the patients' thumb, as well as the little finger . in the foot, hand or foot. Ask the patient to open and close check the feeling on the flesh of the big toe a fist for an upper extremity injury and to and on the lateral side of the foot. The patients' wiggle the toes and move the foot up and down ability to sense light touch in the fingers or toes for a lower extremity injury. Sometimes, as an distal to the site of a fracture is a good attempt at motion will produce pain at the indication that the nerve supply is intact. injury site. If this happens, do not continue this part of the examination. To avoid causing pain, do not perform this test at all if the injury involves the hand or foot itself.
3. If swelling is present, **apply cold packs** to the area; however avoid placing cold packs directly on the skin or other exposed tissues
4. Prepare the patient for transport. A patient with an isolated upper extremity injury should be position semi-seated, they will be comfortable likely in these position. However if there is a suspicion of spinal cord injury position the patient lying flat.
5. Always inform hospital personnel about all wounds that have been dressed and splinted.

SPECIFIC INJURIES

1. Injuries of the clavicle and scapula – apply a sling, this will support the weight of an injured upper extremity by relieving the downward pull of the gravity on the injured site. Apply swathe to fully stabilize the shoulders and prevent the arm from swinging freely but leave the fingers exposed so that you can assess neurovascular function.
2. Injuries to the shoulder – Splint the joint in whatever position is most comfortable for the patient. If necessary, place a pillow or rolled blankets or towels between the arm and chest to fill up the space between them.

EMERGENCY TRANSFERS

Rapid Extrication Techniques / Urgent Moves

Use an emergency move to move a patient before care are provided when there is potential danger, and you and the patient must move to a safe place to avoid possible serious harm or death. There is a danger of aggravating ones injury while doing emergency moves, however you can move a patient from a life threatening situation without causing further injury to the patient.

Use these following methods:

- I. ONE RESCUER DRAGS, CARRIES, AND LIFTS.
 - ✓ Front cradle, cradle inn arms or lovers carry
 - ✓ Fire fighter's drag
 - ✓ One-person walking assist
 - ✓ Fire fighter's carry
 - ✓ Pack strap
 - ✓ Pull on the patient's clothing in the neck and shoulder area
 - ✓ Place the patient onto a blanket, coat or other item that it can be pulled.
 - ✓ Rotate the patients' arms so that they are extended straight on the ground beyond his or her head, grasp the wrists, and, with the arms elevated above the ground, drag the patient.
 - ✓ Place your arms under the patients shoulders and through the armpits, and, while grasping the patients arms, drag the patient backward.
- ✓ Direct Ground Lift – this should only be used for patients with no suspected spinal injury who are found lying supine on the ground. Steps:
 1. Line up on one side of the patient with the first team member at the patients head, second team member at the patients waist, and third team member at the patients knees. All person kneel on one knee, preferably the same knee
 2. The patient's arms should be placed on his or her chest if possible.
 3. First person places one arm under the patient's head first then places the other arm under the patients lower back.

4. Second team member moves to a position between the patient's legs, facing in the same direction as the patient, and slips his or her hands under the patient's knees.
5. As the team member at the head gives the command, both stand fully upright and move the patient to the stretcher.

Treat patients having seizure by applying the following steps:

1. Ensure a patent airway or an open airway by doing your head tilt chin lift.
2. If the person is standing or sitting,, ease the person on the floor.
3. Place a pillow or a folded the blanket under the head.
4. Loosen restrictive clothing.
5. Clear the area of any hazards or hard objects.
6. If vomiting occurs, turn the patient as one unit on its side or do side lying.

Treat patient with carbon monoxide poisoning by applying the following steps:

Signs and symptoms:

- ✓ Headache
- ✓ Shortness of breath
- ✓ Weakness or fatigue
- ✓ Unstable gait
- ✓ Nausea
- ✓ Unconsciousness

- Remove patient from the area, get the person fresh air. Do not enter the same without using breathing apparatus or if the area is not ventilated. Safety First!
- If person is unconscious check injuries first before moving
- If possible turn off carbon monoxide source
- Perform CPR if necessary

Mass-Casualty Incidents refers to any call that involves three or more patients, any situation that places such a great demand on available equipment or personnel. If there are multiple patients and not enough resources to handle them without abandoning victims, you should declare a mass-casualty incident, request additional resources and initiate incident command system and triage procedures. Triage is the sorting of two or more patients based on the severity of their conditions to establish priorities for care based on available resources.

Follow these triage steps:

- Life saving care rapidly should be administered to those in need.
- Color coding to indicate priority for treatment and transportation at the scene. Red-tagged patients are the first priority, yellow-tagged patients are the second priority, and those tagged green or black are the lowest priority.

Triage Category	Typical Injuries
<p>Red Tag : First Priority (Immediately)</p> <ul style="list-style-type: none"> • Uncontrolled or severe bleeding • Severe medical problems \ signs of shock • Severe burns 	<p><input type="checkbox"/> Airway and breathing difficulties</p> <p><input type="checkbox"/> Decrease level of consciousness (hypoperfusion)</p>
<p>Yellow Tag: Second Priority (Delayed)</p> <ul style="list-style-type: none"> • Major or multiple bone injuries <p>Patients whose treatment and transportation can be temporarily delayed.</p>	<p><input type="checkbox"/> Burns without airway problems</p> <p><input type="checkbox"/> Back injuries with or without spinal cord damage</p>
<p>Green tag : Third Priority (Walking wounded)</p>	<p><input type="checkbox"/> Minor fractures</p> <p><input type="checkbox"/> Minor soft tissue injuries</p>

Patients who do not require any treatment and transportation can be delayed until last.

<p>Black Tag : Fourth Priority (DOA)</p> <ul style="list-style-type: none"> • Obviously nonsurvivable injury, such as <p>Patients who are already dead or have little chance for survival. If resources are limited</p>	<p><input type="checkbox"/> Obvious death</p> <p><input type="checkbox"/> major open brain</p> <p><input type="checkbox"/> Respiratory arrest (if limited resources) treat salvageable patients before treating <input type="checkbox"/> Full cardiac arrest these patients.</p>
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- Rapid removal of red-tagged patients for field treatment and transportation if ambulances are available.
- Use of a separate treatment area to care for red-tagged patients if transport is not immediately available. Yellow-tagged patients can also be monitored and cared for in the treatment area while waiting for transportation.
- When there are more patients waiting for transport than there are ambulances, the transportation sector officer decides which patient is the next to be loaded.

- Specialized transportation resources (such as air ambulances, paramedic ambulances) require separate decisions when these resources are available but limited.


SECTION 20

PENALTIES

TABLE OF OFFENSES AND PENALTIES					
NATURE OF OFFENSE	PENALTY				
	OFFENSES				
	1ST	2ND	3RD	4TH	5TH
<p>1. Failure to observe the following safety rules and regulations (Depending on nature of violation and consequence, penalty may range from Suspension to Dismissal):</p> <ul style="list-style-type: none"> a. Riding on bumpers between moving cars b. Unauthorized riding of trains and/or motors c. Getting on and off locomotive while the latter is in motion d. Making flying switches e. Doing electrical repairs when not authorized f. Not using safety ropes/belts when required g. Dropping tools and other equipment through chutes or manways h. Not wearing PPE's when required i. Not blowing air before entering abandoned or old working places 	3 days suspension	7 days suspension	15 days suspension	30 days suspension	Dismissal
<p>2. Failure to follow safety rules and regulations, instructions, SOP's, and others not specified in item #1. (If violation results to destruction of company property, serious injury or death penalty is dismissal).</p>	3 days suspension	7 days suspension	15 days suspension	30 days suspension	Dismissal

3. Failure to report to the Safety office any injury sustained in an industrial accident no matter how minor.	3 days suspension	7 days suspension	15 days suspension	30 days suspension	Dismissal
4. Smoking within "No Smoking" area (Immediate dismissal if violation results in fire or damages to Company properties or injuries to personnel)	3 days suspension	7 days suspension	15 days suspension	30 days suspension	Dismissal
5. Improper drilling and handling of explosives such as: (If violation results to destruction of company property, serious injury or death penalty is dismissal) a. Drilling into or around misfires and/or bootlegs. b. Improper/not guarding entrance/exits during blasting c. Smoking while carrying/charging explosives d. Cutting fuses below standard e. Not using fuse timers when required	30 days suspension	Dismissal			
6. Using or operating, or allowing others to use or operate any Company vehicle, machinery or equipment without proper authorization. (If unauthorized use resulted into injury to persons and/or damage to equipment or part thereof, the penalty is Dismissal)	3 days suspension	7 days suspension	15 days suspension	30 days suspension	Dismissal
7. Driving while under the influence of liquor. (Penalty is immediate Dismissal if causing damage to company property or death or injury to other persons)	7 days suspension	15 days suspension	30 days suspension	Dismissal	
8. Unauthorized installation and alteration of electrical connections in housing areas and/or industrial areas. (If violation results to destruction of company property, or injury to persons the penalty is Dismissal)	15 days suspension	30 days suspension	Dismissal		

9. Deliberate setting of any types of fires. (In causes of arson or when destruction of properties, death, or injuries from the fire, the penalty is outright Dismissal)	15 days suspension	30 days suspension	Dismissal		
10. Failure to undertake barring down in his workplace. (If violation results to destruction of company property, serious injury or death penalty is Dismissal)	7 days suspension	15 days suspension	30 days suspension	Dismissal	
11. Failure to install proper support in his workplace. (If violation results to destruction of company property, serious injury or death penalty is Dismissal)	7 days suspension	15 days suspension	30 days suspension	Dismissal	

Received:

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