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GENERAL STANDARDS

1. Make sure oxygen and acetylene bottles are secured at all times.
2. Tanks shall not be dragged with channel locks or regulators assembled with channel locks.
3. Golf carts are not allowed in return air courses or the last open crosscut.
4. When operating a golf car, follow "Golf Cart Operator's Checklist" on page 20.
5. All underground personnel are required to wear safety glasses anytime they are at risk of getting material in their eyes. This includes when using a hammer; when installing roof bolts and any time they are traveling on a personnel carrier.
6. Golf cart/diesel operators and riders should pick up steel bands and other trash in roadways. Leave trash at designated storage areas.
7. No cables are to be run over.
8. Supply road ventilation doors (any set of airlock doors) can only be opened one (1) at a time.
9. Standard books will be kept by each person at all times.
10. All high voltage cable must be guarded when clearance is less than 6.5 feet from the mine floor in any location where persons regularly work or pass under it.
11. All cribs or timbers, which are knocked, must be reset.
12. Never operate equipment that has been tagged out or remove someone else's tag without proper authorization.

13. When operating any piece of equipment, follow the appropriate standards and keep entire body inside passenger compartment.
14. Never store any materials, tools or equipment in an unsafe or hazardous condition. Always secure items to prevent them from falling or tipping over.
15. When working under any equipment or heavy material, always block it up and chock it to prevent it from moving in any direction.
16. Whenever connecting catheads to a receptacle, make sure the locking device is working properly and latched.
17. When operating any piece of equipment, report all mechanical and/or electrical operational problems to a responsible person.
18. Never travel in or inby openings that create an intersection unless supported according to the roof control plan.
19. SCSR's must be worn at all times unless it presents a hazard. When it must be removed, it must be kept within 25 feet of you at all times.
20. Always bend nails over in any boards that are discarded, to eliminate walking hazards.
21. During cutting and welding operations, the following procedures will be followed:
 - a. The methane level must be below 1.0 percent.
A test will be made immediately before and during any cutting and welding operations.
 - b. Rockdust or a fire extinguisher will be immediately available during cutting and welding operations.

- c. If oil, grease or coal dust is present at the worksite, rockdust the area within ten (10) feet of the cutting and welding operations.
22. Do not park equipment close to curtains. A piece of equipment left unattended must be parked either partially through a curtain or well away from it.
23. Correct and/or report all hazardous conditions to a responsible person.
24. When operating any diesel equipment, follow "Diesel Equipment Operator Checklist" on page 17.

BELT DRIVE INSTALLATION

1. Clean header hole rib to rib.
2. Header will be set a minimum of 12" off ground, (if possible)
3. Get headroller over belt so both wipers will wipe on belt, not on ground, (if height allows)
4. Make sure header is lined and level.
5. Lights will be installed in header hole.
6. Header will be tied off with 2 ropes or chains at headroller.
7. Make sure all jack pipe heads are tightened with sledge. (Header and Take-up)
8. Make sure take-up is lined and level.
9. Weld take-up to header using pipes, bars, or "straps.
10. Guards will be installed before header is run.
11. Fire suppression will be installed, including over tank-up tank, and operating before header is run.
12. Water sprays will be installed at head roller and between belts and operating before header is run.
13. PM header before running.
14. Put rubber mat in front of starting box.
15. Install V-wiper.
16. Install phone.
17. Fill take-up hydraulics with fire retardant fluids.
18. Place two (2) fire extinguishers at the header. (One at the starting box and one at the take-up pump)
19. Place two (2) firehoses (250 ft. each), a nozzle and a pressure reducer at the header. (One at the starting box and one at the take-up pump)

BELT MECHANICS 1ST AND 2ND SHIFT

1. Check that all guards are secured and positioned correctly on all headers and tailpieces. Guards on headers will overlap where possible, and be secured at top and bottom.
2. Make sure correct number and position of water sprays are working per Dust Control Plan, and sprays are directed against airflow.
3. Check condition and operation of wipers.
4. Keep trash picked up around headers and tailpieces.
5. Keep header areas well rockdusted.
6. Check fire extinguishers and 250 lbs. of rock dust at headers. Check that fire extinguisher is fully charged, has a metal inspection tag, and update tag every six (6) months or more often.
7. Check fire hoses, pressure reducers, and nozzles at headers.
8. Visually check fire suppression on headers and make sure water is turned on and dust caps are on nozzles.
9. Check belt-starting boxes and keep inside and outside clean. Place rubber mat in front of box. Maintain 24" clearance from coal rib or separated by 4" thick block wall, unless starting box is solid state.
10. Make sure header cables are hung entirely to the power center.

11. Check trickle dusters. Keep covers closed on control boxes.
12. Keep lights working. Immediately replace bulbs that are broken.
13. Make sure phone is properly hung and in good working order.
14. Check for correct placement and operation of gob switches, slip switch, sequence switch, and remote switches.
15. Hang signs, which identify the belt drive and any remote switches.
16. Lock and tag out belt drive when working anywhere on the belt or the tailpiece. Never depend on a remote switch.
17. Jumpering out or bypassing a fuse on any controlling device can only be done in a test or while troubleshooting. Either direct, constant communications or physical presence at the worksite is required during this time.
18. Maintain welder and welder cables in safe areas with cable hung properly or looped on top of welder. Disconnect welder when not in use.
19. Correct and/or report all hazardous conditions to responsible person.
20. Check for proper fuses, overloads, and circuit breaker settings.
21. Make sure all 100v cords for lights and pumps are identified.
22. Grease header and tailpiece.

BELT MOVERS

PRE-OPERATIONAL

When using a scoop, follow "Outby Scoop Operator" standards on page 64.

OPERATIONAL

1. Belt entry cleaned rib to rib.
2. Make sure feeder is scooped and tailpiece is shoveled before feeder is pulled off belt.
3. Turn buckle on each A-frame when applicable.
4. Install top framing 5' apart; bottom framing 10' apart.
5. Make sure rope or tubing is 24" from mine floor.
6. Chain hangers straight and 10 feet apart.
7. Waterline up to tailpiece and fire valve every belt lay. (Fire valves installed every 300 ft.)
8. Waterline flushed prior to attaching regulator.
9. All extra framing, chains, waterline, etc., gathered up and put in central location.
10. Tailpiece guarded properly.
11. Feeder cable hung entire distance to sub. Inspect and repair as needed.
12. Belt operation will be inspected and aligned while coal is being loaded.
13. Pilot line moved up and hung properly. On/off switch installed over center of belt at mandors.
14. Feeder properly set and running on automatic.
15. Spillboards will be solidly constructed.
16. When installing waterline, lay sections close to rib so as not to create a tripping hazard.

17. Reset any timbers or cribs that are knocked while installing belts.
18. Bulk rockdust entire length of newly installed belt.
19. Construct all airlocks across neutrals.
20. Fill in previous belt regulator and plaster.
21. Open new belt regulator to establish proper inby air movement in neutrals.

BELT SPLICER

1. Knock the power to the belt when making a splice. Never depend on a remote switch, (follow the lock and tag out procedures when necessary)
2. Using a tape measure, accurately measure, mark and cut the belt square in preparation for splicing.
3. Align splice clips in center of belts.
4. Install splice rivets based on thickness of belt.
5. Replace all guards, rollers, etc., upon completion of splicing process.
6. Jumpering out or bypassing a fuse on any controlling device can only be done in a test or while troubleshooting. Either direct, constant communications or physical presence at the worksite is required during this time.
7. Check all belt lays for bad splices after belt is running. Run belt long enough to visually check all splices.
8. Do not leave belt supplies around headers.
9. Take all old splices and belts out to supply road.
10. Keep trash out of header holes.
11. Make sure water sprays are working at headers.
12. Make sure belt is on auto when you leave header location.
13. See that splicing materials are ordered as needed.
14. Correct and/or report unsatisfactory or hazardous conditions to a responsible person.

BELT WALKER/CLEANER

1. Remove loose rock and coal piles and report float dust conditions.
2. Report and flag all bad rollers daily. Unsafe rollers must be removed from service immediately. Contact responsible person for proper assistance.
3. Record and report hazards and any corrections made in belt books and sign and date.
4. Report all close clearance areas. (24" of clearance required along both sides of belt) If uncorrectable, these areas must be posted on both ends with a close clearance sign and a stop/start switch installed over center of belt on each end of area.
5. Check all headers, tailpieces and underpasses for proper guards.
6. Scale down loose rock when practical along beltline and report any questionable top. Check header holes for proper brow support.
7. Check pilot line and make sure it's hung correctly.
8. Check each header you walk by to make sure water sprays are working correctly. Report or repair any inoperative sprays.
9. Report all water and oil accumulations and water leaks.
10. Check each header for four (4) fire hoses with nozzle and pressure reducer. Record fire hoses that need to be replaced in belt book and remove them from the mine immediately.
11. Check each header for two fully charged fire extinguishers. Record fire extinguishers that need to be replaced in belt book.

12. Visually check handles and nipples on existing fire valves daily to ensure they are functional. Actual test required annually - record tests in book.
13. Examine overcast and stoppings for holes or excessive leakage and report to a responsible person.
14. Check belt air for distinct inby movement. If air is moving outby, report findings to a responsible person.
15. Record date, time and initials in all areas examined.
16. Reset/report any missing timbers along belt.
17. Make sure all crosscuts in the belt entry are numbered properly.
18. Keep all loose material free from walkways on both sides of belt.
19. Check that between the belt sprays are operating properly.
20. Check that fire hose outlets are at 300' intervals and in working condition.
21. Check that remote (start/stop) switches are a maximum of 1000' intervals and are installed over center of belt.
22. Correct and/or report all unsatisfactory or hazardous conditions to a responsible person.

BRATTICE WORKERS

PRE-OPERATIONAL

1. If scoops are used follow "Section Scoop Operator" standards on page 48.

OPERATIONAL

1. Check for any hazardous conditions in area where brattice is to be built.
2. Make sure bottom is solid and free of loose material where brattice is to be built.
3. Build brattice according to ventilation plan. Three open crosscuts maximum on return and up to tailpiece on intake. A brattice must be plastered on both sides in the mains and sub-mains, in panels only on the high pressure side.
4. Keep holes patched in brattices. Check for holes after every belt or power move.
5. Keep air locks built where necessary. Tear down old air locks after new ones have been built. Always bend down old nails.
6. Keep supplies moved up (block, plaster, cap boards). Pick up all trash.
7. Put manddoors in brattices according to ventilation plan. (Every 500' if coal height is 48" or greater, every 300' if less than 48")
8. Make sure all combustible materials are plastered. (capboards, headers, etc).

BRATTICE AND OVERCAST CONSTRUCTION

These procedures should be used as Standard Practice in the building of all brattices and overcasts.

1. Clean all loose material from floor, roof and ribs.
2. Build brattice tight against ribs.
3. Plaster brattice heavily on both sides of brattice with emphasis on edges.
4. Heavily plaster all combustible material used in the construction of brattices.
5. Never use a brattice door as a vent or regulator.
6. Check clearance over overcast to ensure proper area for airflow. The clearance must be equal to the height of the coal seam and width should equal average entry width.
7. Support brows on all sides of overcast according to roof control plan.

CABLE SPLICING PROCEDURES

1. Make all cable splices according to kit instructions.
2. Rebuild cables up to original cable size when making splices.

DIESEL EQUIPMENT OPERATOR CHECKLIST PRE-OPERATIONAL INSPECTION

1. Make sure electrical connections are insulated. (Battery terminals, alternator, solenoid, fuses, etc.)
2. Make sure fire suppression is operating correctly and that nozzles are covered with dust caps.
3. Make sure fire extinguisher is fully charged and tag has been marked in last 6 months.
4. Only one 5-gallon diesel fuel safety can may be carried on vehicle.
5. Make sure service and parking brakes are operating correctly. Set parking brake when getting off of vehicle.
6. Make sure air filter service indicator is intact and not in the red.
7. Make sure fuel lines have Kevlar sleeving up to and including the connections, unless equipment has exhaust wrapped.
8. Make sure vehicle is free of accumulations of diesel fuel, oil and coal.
9. Make sure fuel cap is self closing.
10. Make sure fluid levels are correct (motor oil, hydraulic oil, transmission, brake, radiator, etc.).
11. Make sure lights work and are properly secured.
12. Make sure tires are inflated and lug bolts are tight.

FIRE BOSS

1. Fireboss will report in the Outby Preshift book any hazard, which might exist along the supply road. Check all high top.
2. The fireboss will fill out all preshift and travelway books require by his job and 30 CFR Part 75.
3. Check fire extinguishers. Update extinguisher's inspecting tag every six (6) months or more often.
4. The fireboss will correct any condition he is able to correct within the time frame he is allotted.
5. During the inspection of air courses, make note and record the following:
 - a. Condition of overcast. (Brow support and steps)
 - b. Accumulation of trash.
 - c. Any obstructions in escapeways.
 - d. General condition of roof.
 - e. Roof falls must be reported to the Safety Department and marked on mine maps, within 24 hours.
 - f. Any holes in brattices.
 - g. Brattice doors. (Condition and location)
 - h. Condition of abandoned rooms.
6. Mark the intake escapeways with blue dots and arrows. Mark the return with red dots and arrows and the return neutral should be marked in yellow.
7. Install escapeway arrows showing location of escapeway doors, provide additional signs as needed.

8. Put initials, date, and time in each working place on the units. For outby areas, including all travelways and electrical installations certify at enough locations to show the entire area has been examined. (Maximum of 20 crosscuts between initials in returns and bleeders)
9. Correct and/or report all conditions to responsible person.
10. Keep diesel ride clean.

GOLF CART OPERATOR'S CHECKLIST

PRE-OPERATIONAL

1. Covers secure on charger.
2. Equipment I.D. number must be visible.
3. Check three-prong plug on charger for good condition and identification and ground strap to frame.
4. Insulator good where charger leads plug to cart.
5. Headlight switch and lamp operational.
6. Check fire extinguisher and update.
7. All electrical components covered.
8. Brakes and brake lock in good working order.
9. Make sure batteries are covered and water batteries weekly.
10. Repair or have repaired any unsafe condition prior to use.
11. Always block up and secure golf cart when making repairs underneath.
12. Do not charge golf cart(s) in the Primary Escapeway.
13. Unless clearly marked otherwise, directional switch must be installed so when pulled toward operator, cart trams forward (standard for all carts).
14. Fill out inspection book weekly. Follow instructions on page 21 "Golf Cart Examinations..."

OPERATIONAL

1. Keep entire body inside confines of passenger compartment.
2. Maintain safe operating speed.

GOLF CART EXAMINATIONS TO BE PERFORMED BY A CERTIFIED ELECTRICIAN

The following is a list of items to be checked weekly by a certified electrician. If the items checked are O.K., sign the proper week in the golf cart record book. If repairs are needed, show repairs in proper week and sign that corrections have been made.

1. Light working, lens cover, switches covered.
2. Overloads connected between battery and directional switch.
3. Fuse in line on control circuit.
4. Fuse in line on light switch.
5. Ground lead from plug to charger and from charger to frame of cart.
6. Fuse on charger.
7. Cover over foot switch.
8. No exposed terminals or contacts.
9. Make repairs or tag out as necessary.
10. Parking brake working properly.
11. Fire extinguisher good and tag punched up to date.

GREASER

PRE-OPERATIONAL

1. Check for fire extinguisher with updated tag at oil station. (25 gallons or more is a station)
2. Keep oil station clean and rock dusted.
3. Guard high voltage cable if oil/grease is stored in crosscut behind high voltage cable.
4. Follow pre-operational checks for any equipment you may use.

OPERATIONAL

1. Report all equipment violations you may find while greasing.
2. Return empty oil cans to trash pile to be picked up.
3. Watch for and do not run over equipment cables.
4. Any oil spillage that occurs while performing job duties shall be well rockdusted.
5. Wash around pump motor on shuttle car every night.
6. Correct and/or report any hazardous conditions to supervisor.

UNDERGROUND SUPPLY

PRE-OPERATIONAL

1. Follow "Diesel Equipment Operator Checklist" on page 17.
2. Check that fire extinguisher is fully charged and tag is marked within last 6 months.
3. Make all required diesel exhaust emission checks and record in appropriate book.
4. Correct and/or report all unsatisfactory or hazardous conditions to responsible person.
5. Keep cab clean of trash and oil, wash if necessary.

OPERATIONAL

1. Make sure brake is set and tractor is secured before leaving unattended.
2. Do not allow diesel motors to idle.
3. Haul supplies at safe speed.
4. Never work or unload supplies under unguarded high voltage cable unless the cable has 6.5 ft. clearance from mine floor.
5. Pick up and send all empty pallets outside.
6. Swap out trash wagons when needed.
7. Each trip, all available empty trailers will be removed from the end of supply road areas, loaded with all available trash and any old parts, and brought out of the mines.
9. Keep reflective material on rear end of all supply cars.
10. Unload oil and grease at central location with fire extinguisher available.
11. Materials shall not be transported on top of tractor.

LAMP ROOM ATTENDANT

1. The on-coming attendant should discuss the days events with the attendant from previous shift.
2. If need be, follow-up on any carry-over assignment from the previous shift.
3. Check lamps and chargers to ensure proper charging.
4. Check and maintain the areas assigned to you for cleaning.
5. At the beginning of every shift, check work area for any unsafe conditions. Correct such conditions or report to responsible supervisor.
6. When using any electrically power equipment, check for proper grounding and safe condition of equipment and surrounding area.
7. Familiarize yourself with the location of any fire extinguishers in your work area. Update fire extinguisher inspection tags every six (6) months or more often.
9. Answer all fire alarms and contact appropriate personnel.
10. Log all alarms in a record book.
11. Operate switchboard in a professional manner.
12. Initiate and log all ambulance calls.
13. Stay familiar with Mine Emergency Plan procedures.
14. Be sure drug test sheet accompanies accident victim.

MECHANIC, MINER THIRD SHIFT

1. Clean ductwork.
2. Check and clean water sprays, and make sure correct number are working.
3. Visually check fire suppression and activate.
4. Clean rock off top of miner.
5. Clean sump and de-mister (weekly).
6. Take ductwork air velocity reading and record it in office (weekly).
7. Change or clean water filter (weekly).
8. Visually check all lights.
9. Visually check methane monitor readout.
10. Check cats for tightness.
11. Look at the conveyor chain and replace missing t-pins and bent flights.
12. Bolt down any loose covers.
13. Check the scrubber discharge hose and check scrubber spray pressure (35psi).
14. Check foot shaft and sprocket.
15. Check water pressure on head sprays (100psi +/- 10).
16. Check for missing bit blocks.
17. Replace any dull bits.

MECHANIC, ROVER

1. Check for parts at start of each shift.
2. Check diesel ride at start of each shift. Follow “Diesel Equipment Operator Checklist” on page 17.
3. Check diesel exhaust emission and record in book.
4. Parts Shack and Shop Area
 - a. Check lights are hung and guarded.
 - b. Replace broken or missing bulbs.
 - c. Check that high voltage is guarded at mouth of shack.
 - d. Check fire suppression system.
 - e. Check welder and transformer and ensure that all are tagged properly and mats in place.

MECHANIC, THIRD SHIFT

1. Follow pre-operational checks on equipment before operating.
2. Keep work area clean and free of any fire hazards.
3. Keep non-essential maintenance supplies at tool slide.
4. Always lock and tag out equipment if working on cable, electrical components, or any moving mechanical components.
5. Always wear proper eye protection when cutting and welding.
6. Maintain welder and welder cables in safe areas with cable hung properly or looped on top of welder. Disconnect welder when not in use. If oil, grease or coal dust is present in work area, the entire area within 10 ft. must be well rockdusted.
7. Always block and check equipment before working underneath it.
8. Tag out dangerous or otherwise unsafe equipment and notify responsible person.
9. Do not operate any equipment while a control device is jumpered out or bypassed.
10. Gauge all panel openings after they have been removed (or repairs, before returning the equipment to service.

MECHANIC, UNIT

1. Check oxygen and acetylene bottles for caps and that they are upright, and secure.
2. Sub and rectifier,
 - a. Check fire extinguisher and update inspection tag every six (6) months or more often.
 - b. Check for 250 lbs. of rockdust.
 - c. Check rubber mats.
 - d. Check for proper setting on all breakers.
 - e. Check catheads for being latched, explosion boots intact, and locking device is working properly.
 - f. Make sure all panels and catheads are properly tagged and there are no gaps between panels.
 - g. Make sure phone line is not touching any power cables at sub and after phone line is extended on power moves.
 - h. Make sure there is no combustible material lying on or around subs and rectifier.
 - i. Check shack lights for broken or missing bulbs and guards. Repair or replace as needed.
3. Check that all required sprays are functional on feeder.
4. Check tailpiece guards, bearings and grease.
5. Check for an excessive accumulation of oil under the feeder, clean up if necessary.
6. Keep feeder washed.
7. Keep toolslide clean and stocked.

EXTRA MAN

PRE-OPERATIONAL

1. Check curtains from last permanent stopping to last open x-cut.
2. Correct and/or report all unsatisfactory or hazardous conditions to responsible person.

OPERATIONAL

1. Initially install curtains at the face and help equipment operators maintain curtains in proper condition. Each operator is responsible for the curtain in the area he/she is working in.
2. Install wing curtains so that each section of curtain overlaps the other.
3. Water down haulroads as needed.
4. Move up all old curtains and dispose of unusable curtain.
5. Help apply rockdust to roof, rib and mine floor in faces and/or crosscuts that are advanced beyond 40' of previously rockdusted surfaces.
6. A wing curtain must be installed as soon as the face of an entry is advanced 20' beyond the last full row of bolts.
7. Back up curtains are to be installed using clear curtain.
8. Make sure tailpiece is guarded, cleaned and dusted.

MINER OPERATOR

PRE-OPERATIONAL

1. Walk cable from sub to miner, check for any damaged places and proper routing of cable.
2. Test emergency shut down (panic bar, methane monitor). Check methane monitor sensor for cleanliness (dirt, grease).
3. Check for pry bar.
4. Do visual check of miner.
 - a. Lights working, bolted or welded securely, and no cracked lenses.
 - b. Check for loose leads or broken circuit.
 - c. Loose or missing bolts in panels.
 - d. Water sprays working properly and correct number per the Dust Control Plan.
 - e. Bits and blocks in place.
 - f. Conveyor chain tightened properly.
 - g. No excessive rock on top of miner.
 - h. Check that fire suppression system is operational (manual and remote).
5. Check that methane warning light is not covered with supplies or other material.
6. Check that methane monitor readings are accurate when compared to spotter.
7. Correct and/or report all unsatisfactory or hazardous conditions to responsible person.

OPERATIONAL

1. Stop continuous miner in last open crosscut and make proper gas check, and check for any other unsafe conditions before moving miner into face. (Use extendable probe when necessary)
2. Make additional gas checks every 20 minutes while the miner remains in by the last open crosscut.
3. When 1% of methane is detected with a hand held spotter in a working place, equipment will be de-energized. Changes to ventilation will be made, and no other work will be performed until methane is reduced to less than 1%.
4. When methane monitor on the continuous miner indicates a presence of a sustained concentration of 1% or more of methane you must follow #3.
5. Make sure a wing curtain is properly hung and proper air movement is behind wing.
 - a. A wing curtain must be installed as soon as the face of an entry is advanced 20 ft. beyond the inby ribline of the last open crosscut. Thereafter the wing curtain will be maintained to within 10 ft. of the bumper of the continuous miner up to the second row of bolts out by the unsupported top in the cut.
6. Maintain 5000 cfm behind wing curtain before, and 6500 cfm after the scrubber is started. Check sight lines at start and as often as needed to stay on sights. Watch center line closely to maintain proper entry width.
7. Keep miner out of bottom and top, unless in areas that require bottom to be taken and then only the amount needed.

8. Do not advance the face of an entry over 105 ft. from the inby rib of the last open crosscut.
9. Do not cut deeper than 40 feet from the last full row of bolts.
10. Flag out unsupported roof upon completion of cut before leaving the working place, at the 2nd row of bolts.
11. Trim any overhanging ribs in crosscuts and entries when entering each place, if place is too wide, flag until support is added.
12. Keep miner cable hung or against rib for protection.
13. When moving the miner from one entry to another, maintain two loops of cable on the cable horn.
14. Always use the cut sequence as described in the approved ventilation plan.
15. Always stand at inby end of wing curtain to minimize respirable dust exposure.
16. Never position yourself or allow anyone to position themselves between tail of miner and rib or head of miner and rib. Stand clearly in front or behind the miner when tramming. Stay out of the red zone.
17. De-energize miner when changing bits.
18. Clean scrubber screen after every cut.
19. Clean methane sniffer cover before beginning to cut coal in each place.
20. Before beginning to cut coal in place, the bits on the continuous miner will be examined and any broken bits or bits with the tips missing will be replaced.

OUTBY SCOOP OPERATOR

PRE-OPERATIONAL

1. Make sure charger cable is hung entirely, not touching high voltage cable.
2. Check that high voltage cable is guarded where scoop passes under it unless cable is 6.5 ft. above mine floor.
3. Check fire extinguisher at charger and that surrounding area is well rockdusted and clean.
4. Charger is 24" from coal rib.
5. Check ground clamp and cable restraining clamp at charger.
6. Visual inspection of Scoop.
 - a. Check panic bar de-energizes scoop (in both directions).
 - b. Check brakes.
 - c. Check if lights working, bolted or welded securely, and no cracked lenses.
 - d. Check for mashed leads or conduit.
 - e. Check all control levers.
 - f. Check battery lids (bolted down and/or secured).
 - g. Check water in batteries.
 - h. Check battery plugs are, or can be locked.
 - i. Check PTO plug on scoop. Check for proper operation of safety plunger even if not using.
 - j. Check wheel bolts.
 - k. Check for loose or missing bolts in panels.
 - l. Fire suppression buttons and tubes in operative condition on scoop.

- m. Check that cross-over pads are in place and in good condition.
- 7. Check that canopy tag is securely attached to canopy.
- 8. Correct and/or report all unsatisfactory or hazardous conditions to responsible person.

OPERATIONAL

- 1. Help keep supply roads clean and supplies in order.
- 2. Any timbers or cribs knocked or dislodged are to be rebuilt/reset or reported to supervisor.
- 3. Never transport men in scoop bucket with any supplies or equipment. If men must ride in bucket, scoop will be trammed with the bucket trailing and lowered as close as possible to the mine floor. The bucket ejector cylinder must also be disabled to prevent accidental movement.
- 4. Always use solid, well constructed battery stands.
- 5. Check jumper cables prior to use.
- 6. When hauling supplies to the units, make use of all available space to haul additional supplies if height allows.
- 7. Clean all trash and loose debris out of charging hole.
- 8. Keep rockdust and debris off battery covers.
- 9. Wear hearing protection as required.
- 10. Material that may potentially cause a hazard to the operator may not be hauled on top of the scoop.

OUTBY ROCK DUSTER

PRE-OPERATIONAL

- 1. When using a Scoop or tractor, follow "Outby Scoop Operator" standards on page 33.
- 2. Rock Duster
 - a. Leads and plugs are in proper working condition.
 - b. Panel bolts tight.
 - c. Breaker is working properly.
 - d. Hose is not crimped and long enough.
 - e. Fire suppression buttons and tubes in operative condition.
 - f. Make necessary diesel emissions checks and record in book.
 - g. Correct and/or report all unsatisfactory or "hazardous conditions to responsible person."
 - h. Follow 'Diesel Equipment Checklist' on page 17.

OPERATIONAL

- 1. After dusting, take all empty bags to designated trash location.
- 2. Check all subs in work area to make sure loose material and trash is picked up and sub area is dusted.
- 3. Check high voltage to make sure it is guarded anywhere you store supplies or travel under it, unless cable is 6.5 feet above mine floor.
- 4. Correct and/or report all unsatisfactory or hazardous conditions to responsible person.

SUPPLY

PRE-OPERATIONAL

1. Check forklift for lights, horn, brakes, fire extinguishers, and back-up alarms. Update extinguisher inspection tags every six (6) months or more often.
2. Make visual examination of supply yard for hazardous conditions.
3. Check parking brake on forklift.
4. Keep forklift clean inside and out.
5. Service air filters regularly.

OPERATIONAL

1. Do not allow stacks of supplies to lean. Lower height of stacks if this condition occurs.
2. Check supply trailers for defects in couplings, chains or wheels.
3. Use seat belt while operating forklift.
4. Always lower forks to ground when parking or leaving forklift unattended.
5. Straighten yard and keep free of hazards.
6. Maintain list of deliveries and shipments, if unsure, contact supervisor.

PERMISSIBILITY CREW

MACHINE CHECKLIST

1. Check for missing or loose bolts, nuts, and lock washers on explosion-proof enclosures.
2. Plane flange maximum clearance allowed = 0.004"; Step flange maximum clearance allowed = 0.006".
3. Entrance glands should be tight and conduit in good condition. There should not be any unprotected holes through the walls of the enclosure. (Visual)
4. Check for poor splices on trailing cables. Cable entrances properly protected by conduit. (Weekly)
5. No accumulations of oil, grease, and/or loose coal on machine and conduits. Report to responsible person if cleaning is necessary.
6. Approval plate attached to machine.
7. Cable securely restrained with clamp and extra insulation under clamp. (Weekly)
8. All lights bolted or welded securely with no loose, cracked or missing lenses. Set screws must hold lens covers secure.
9. All interlocks and safety switches effective. (Weekly)
10. All fuses in place and proper size. (Monthly)
11. Check for holes burned into cable reel flanges and/or damaged flanges or cable guides. (Weekly)
12. Check for proper frame grounding. (Weekly)
13. Fire suppression system in operating condition and properly charged.
14. Perform weekly examinations on all electrical equipment to ensure safe operating conditions.

POWER CENTER CHECKLIST

1. High voltage cable properly hung and guarded with no kinks or other visible damage. No other cables should contact the high voltage cable. (Visual)
2. No accumulation of combustible material on top of power center.
3. A 10 lb. fire extinguisher shall be available and properly charged. Update the extinguisher inspection tag at least every six (6) months.
4. Check for visible damage to breakers or breaker handles.
5. Cable plugs properly grounded. (Weekly)
6. Strain clamps tight and property insulated. (Weekly)
7. Receptacles, cable plug and breakers clearly marked.
8. Covers on unused low voltage receptacles.
9. Interlocks working properly on breakers. (Weekly)
10. Rubber mats in proper location. (Weekly)
11. Ground fault system working properly and properly wired. (Monthly)
12. Breakers set correctly for load and cable size.
13. Perform weekly examinations on all electrical equipment to ensure safe operating conditions.
14. Make sure locking latches are working properly.
15. Correct or tag and lock out any equipment in non-compliance.
16. Check for explosion boot on catheads.

Record date and corrections in approved book for each piece of equipment.

POWER MOVERS

PRE-OPERATIONAL

1. When using a scoop, follow "Outby Scoop Operator" standards on page 33 and/or "Section Scoop Operator" standards on page 48.

OPERATIONAL

1. Check to make sure equipment is spotted and mechanics are ready for power to be knocked.
2. Have all slack pulled up and extra slack to pull off top of slack pile.
3. Check all catheads for identification.
4. Locate boxes where all catheads can be connected. Boxes must be at least 2 ft. off coal ribs.
5. Put all mats down (replace any that are missing).
6. Guard high voltage cable in all places where men are to work or pass under if less than 6.5 ft. from the mine floor. Install guards from rib to rib.
7. Move up all car anchors and tape chains to hold in place.
8. All car anchors and cable anchors must be attached to non-pattern roof bolts unless they are fully grouted bolts or to rib bolts.
9. All high voltage hung properly. All high voltage slack is to be dangered off.
10. Scoop charger and feeder cables are to be hung. Check/repair as needed. Report any bad places in cable to supervisor.
11. All other cables are to be placed so as not to touch high voltage cable. Place cables in safe and visible area.

12. Move up fire extinguishers.
13. Whenever connecting catheads to receptacles make sure locking device is working properly and latched.
14. Do not run over cables.
15. Close up and plaster previous intake brattice hole for right roof bolter cable.

PUMPMAN

1. Rockdust area and keep 250 lbs. of rockdust and/or fire extinguisher at all pump stations.
2. All high voltage cable guarded where regularly traveled to get to all subs and pumps, unless cable is 6.5 ft. above mine floor.
3. Check pumps for safe operating condition. (Weekly)
4. Check cathead conditions for grounding straps, trip settings, identification tags. Make sure identification tag on cathead matches identification on breaker. (Weekly)
5. Make sure all rubber mats and fire extinguishers are properly located at substation and starting boxes. Update fire extinguisher inspection tags every six (6) months or more often.
6. Record the results of the weekly examinations in the correct book.
7. Follow "mechanics" standards when they apply to your activities.
8. Perform supplemental exams as required if the areas you must work or travel in have not been preshifted.
9. Correct and/or report all unsatisfactory or hazardous conditions to responsible person.

ROCK CREW

PRE-OPERATIONAL

1. Walk cable from power center to equipment being used
 - a. Check for damaged places.
 - b. Make sure cable is hung properly.
2. Make a visual check of equipment.
 - a. Check if lights are working, bolted or welded securely, and no cracked lenses.
 - b. Check panic bar.
 - c. Check guards.
 - d. Check for mashed or broken conduit.
 - e. Check methane monitor (if applicable).
 - f. Check for loose or missing bolts in panels.
 - g. Check operational control levels.
 - h. Fire suppression is in operative condition.
3. Check for pry bars and sledge hammer on equipment.
4. Correct and/or report all unsatisfactory or hazardous conditions to responsible person.

OPERATIONAL

1. Check area for hazards that need to be corrected before work begins.
2. Check for methane in fall area before work begins.
3. Make sure rock loading plan is posted.
4. Make sure all brow support is properly installed prior to rock loading.
5. When pinning, pin according to Roof Control Plan at mine.

6. Stay under supported roof at all times; hang red flagging at the 2nd row of roof support.
7. When gobbing in crosscuts:
 - a. Leave 6' wide walkway to brattices and belt-lines.
 - b. Don't gob out man doors.
 - c. Reset any timbers or cribs that were knocked.
8. Use water on equipment when required.
9. Make sure required amount of air is in area when operating diesel scoops and miner.
10. Knock power on equipment if it is going to be unattended.

ROLLER CHANGERS

1. Always check and leave Header on automatic when finished.
2. Always lock and tag out header when changing rollers.
3. Bring old rollers out from beltline or put in x-cuts.
4. Check all guards around Headers and tailpieces; make sure they are up and secure. Header guards should overlap when possible and secured at top and bottom.
5. Help keep trash picked up around Headers.
6. Keep an inventory of supplies, order as needed.
7. Watch for hazardous conditions on beltlines. (Report to your supervisor.)
8. Bring the old belt roller out from the tailpiece.

ROOF BOLTER

PRE-OPERATIONAL

1. Walk cable from sub to roofbolter.
 - a. Check proper cable routing.
 - b. Check cable for any damaged places, if any hazards are found contact supervisor and/or correct immediately. Check amount of cable on reel.
2. Check pry bar.
3. Check if lights are working, bolted and welded securely, and no cracked lenses.
4. Do visual walk around roofbolter for obvious violations.
 - a. Check for loose leads or damaged conduit.
 - b. Observe panel for any loose or missing bolts.
 - c. Make sure panel is secure.
 - d. Make sure guards are secured and in place.
 - e. Fire suppression buttons and tubes in operative condition.
5. Check that panic bar is operational.
6. Check if torque gauge is visible and in working condition. If gauge not provided, use torque wrench to ensure torque is correct.
7. Check that canopy tag is securely attached to canopy.
8. Check that cross over pads are in place and in good condition.
9. Correct and/or report all unsatisfactory or hazardous conditions to responsible person.

OPERATIONAL

1. Stop roofbolter in last open x-cut and make proper gas test(s) at the face from under roof support using extendable probe.
2. Make proper roof examination and scale down any loose material while staying under supported roof.
3. Install bolts in proper roof bolt pattern as required by the Roof Control Plan.
4. Install bolts to proper torque.
5. Spot any corner pins after trimming is done and crosscuts are turned.
6. Danger flag all areas where bolting is not completed.
7. Keep all trash and loose material picked up in face areas and help load on scoop for removal.
9. If over 20 minutes in a place, an additional gas check must be made.
10. Stand upwind while dumping dust box as close to the rib as possible, out of haulage ways and outby the working face. The return-side operator will dump his box first, then move upwind of the intake-side operator while he dumps his box. When intake-side operator is dumping his box, lift curtain so that air will carry dust away.
11. Remove danger flag after roof bolting has been completed.
12. A wing curtain must be installed when the face has been advanced 20 ft. in by the last full row of bolts.
13. When bolting the wing curtain shall be maintained up to the bumper of the roof bolting machine. 3000 cfm of air movement is required behind the wing. If in doubt, have a qualified person make check.

14. Check that wing curtains are installed so that each section of curtain overlaps the other by one pin plate [approximately five (5) feet]. Make sure curtains are installed on the outside row of pin boards in each place. Re-hang if necessary.
15. Keep cable hung or against rib for protection.
16. Keep loose rock cleaned off top of bolter, ATRS and canopies. Don't allow loose rock to build up around boom or ATRS jacks.
17. Always release ATRS slowly - be aware of any loose rock which may fall when lowering.
18. Never allow curtains to be near the augers while drilling or installing roof bolts.
19. Both operators stay under ATRS canopy on Double Boom Roofbolters until row is complete.
20. Always raise stab jacks before moving roofbolter.
21. At the beginning of each shift, check the suction at the chuck with a gauge to make sure it is at least negative 15.
22. At the beginning of each shift, check behind the dust filter to make sure no dust is collecting on the clean side of the system

SECTION SCOOP OPERATOR

PRE-OPERATIONAL

1. Scoop charger.
 - a. Walk charger cable to sub make sure cable is hung and not touching high voltage cable. Charger is 24" from coal rib.
 - b. High voltage guarded where scoop passes under when cable is less than 6.5 feet from floor.
 - c. Fire extinguisher at charger and area around charger well rock dusted.
 - d. Check ground clamp and cable restraining clamp at charger.
 - e. Make sure charger is vented.
2. Scoop
 - a. Check that panic bar de-energizes scoop (in both directions).
 - b. Check if lights are working, bolted or welded securely, and no cracked lenses.
 - c. Test brakes, service and failsafe.
 - d. Check directional controls.
 - e. Check operating controls.
 - f. Make sure crossover pads and pull chain are available.

- g. Do visual walk around scoop.
 1. Check for loose leads or damaged conduit.
 2. Battery lids and plugs secured properly and locked.
 3. Check battery water at beginning of shift.
 4. Check lug bolts (missing, loose, etc.).
 5. Check bolts in panels (missing, loose, etc.)
 6. Fire suppression is in operative condition.
 7. Check PTO for cover and proper operation of safety plunger even if not using.
 8. Check that canopy tag is securely attached to canopy.
3. Miscellaneous
 - a. Keep safety slide moved up and nothing stored on top.
 - b. Correct and/or report all unsatisfactory or hazardous conditions, including any battery damage, to responsible person.

OPERATIONAL

1. Straights and crosscuts scooped (any curtains torn down during this process must be re-hung).
2. Feeder scooped before end of shift for oncoming shift and during shift as needed.
3. Trash picked up at pin piles, face area and around subs each shift.
4. All supplies, safety slide, tool slide and welder moved up. Maintain a fire extinguisher at the oil station.

5. Gas test must be made at any face in by last open crosscut before taking scoop to face.
6. Never transport men in scoop bucket with any supplies or equipment. If men must ride in bucket, scoop will be trammed with the bucket trailing and lowered as close as possible to the mine floor. The bucket ejector cylinder must also be disabled to prevent accidental movement.
7. Apply rockdust to roof, rib and mine floor in faces and/or crosscuts that are advanced beyond 40' of previously rockdusted surfaces
8. Before passing through a curtain, slow down, sound the audible bell or horn, and flash your lights.
9. Beware of the danger of placing yourself in a hazardous position, tight place, curtain, ribs, etc.
10. When working in areas where visibility is limited (such as behind curtains in blind spots, tight places), identify the work area with flagging or warning signs.
11. Do not dismount the scoop while scoop is running. Turn pump motor off, set brakes, and lower bucket to the ground before dismounting.
12. Lower bucket to the ground or block under bucket before hand loading or unloading bucket.

SHOP ELECTRICIAN

PRE-OPERATIONAL

1. Before attempting to troubleshoot equipment, obtain accurate information about the source of the problem and what actually happened. Did breaker trip, overload trip, processor rack fault, what diagnostic lights were on and were they steady or flashing.
2. Visually inspect equipment for signs of damage or malfunction, broken couplings, motor hot, belt overloaded with material, discolored terminals, and burnt insulation on wire.
3. Upon de-energizing power to equipment, perform voltage check with meter to establish circuit is off. Test meter on known circuit to verify proper operation of meter.
4. After problem has been identified and corrected, make secondary test to make certain equipment is functioning properly. Abnormal voltage and amp readings should be reported to supervisor.
5. Before restarting equipment give appropriate warning to workers in the area.
6. When working with electrical or moving equipment hazards, always lock and tag equipment. If work is to carry on to next shift, have supervisor also lock out so your lock can be removed at shift change.
7. Before performing cutting and welding, make check of area for combustible material or gas in area, loose material laying about that could impose as tripping or falling hazards. Make sure there is

- sufficient support left to keep object from falling or secure by appropriate means. Make sure there is adequate fire suppression equipment in area.
8. Always check equipment conditions before using it; cutting torch hoses, frayed welding leads or meter leads, inoperable meter, nicks or cuts in drop cord, ground wire intact, etc.
 9. Never assume the people you are working with know what you are doing. Talk it over before hand so each is working toward the same goal.
 10. Check fire extinguisher in your assigned area and update monthly.

OPERATIONAL

1. Be observant of surroundings and possible problems. Example: Noise from equipment, motors smelling hot, etc. Report these to supervisor, take immediate action if possible.
2. Before using equipment, check oil level in truck, anti-freeze, tire, etc., correct and report as needed.
3. Keep work area clean, put tools back in proper place when finished.
4. After completing work at end of shift, haul off extraneous material and restock good material back in proper place.
5. Report to supervisor findings of any safety or operational problems observed while performing work.

6. Inform next shift of any permanent changes that have been made or problems encountered during shift, this should also be logged in record book.
7. Make supervisor aware when work is finished and you are proceeding to different work area.
8. Report and/or correct all sub-standard conditions.
9. Welding screens must be in place when welding.

SHUTTLE CAR

PRE-OPERATIONAL

1. Walk cable, from sub to shuttle car.
 - a. Check cable routing.
 - b. Check for damaged places, if any hazards are found, contact supervisor and correct immediately.
2. Check panic bar.
3. Check if lights are working, bolted or welded securely, and no cracked lenses.
4. Check for loose leads or damaged conduit.
5. Check all brakes for proper operation.
6. Check warning bell.
7. Check operational control switches for proper operation and for any loose or missing bolts.
8. Be sure tram pedals are free of obstruction, coal, mud.
9. Check amount of cable on reel.
10. Check car anchor to be sure it is secured, and not anchored to roof bolts that are part of bolt pattern unless they are fully grouted bolts.
11. Check panel covers for missing or loose bolts.
12. Check bolts on wheels and wheel units.
13. Check that fire suppression buttons and tubes are in operative condition.
14. Check that sheave wheel is not frozen.
15. Check that canopy tag is securely attached to canopy.
16. Correct and/or report all unsatisfactory or hazardous conditions to responsible person.

OPERATIONAL

1. Slow down and sound the warning bell when pulling through curtains.
2. Check feeder to see if it needs cleaning and how it is dumping on belt tailpiece.
3. Keep watch on haulage roads: top condition, dust, coal, etc. Correct or report any hazards.
4. Check cable in outside places. Make sure there is enough cable for your shift and the next shift.
5. Tape up or secure all low hanging cables that may be susceptible to damage.
6. Keep slack cable hung or against rib for protection.
7. Never travel under unguarded high voltage cable unless it is at least 6.5 ft. above mine floor.
8. Re hang any curtain that is damaged by your shuttle car.
9. When working in areas where visibility is limited (such as behind curtains, in blind spots, tight places), identify the work area with flagging or warning signs.

TIMBER CREW

PRE-OPERATIONAL

1. When using scoop, follow "Outby Scoop Operators" standards on page 33.
2. Check conditions of roof and ribs in area where working.
3. Understand the proper support pattern according to the roof control plan before installing supports.

OPERATIONAL

1. Supports are to be built according to the approved plan.
2. Be sure all timbers are capped properly.
3. Always clean up area after job is completed.

UNIT ROCKDUSTER

PRE-OPERATIONAL

1. When using scoop, follow "Outby Scoop Operator Standards" on page 33 and/or "Section Scoop Operator" standards on page 48.
2. Visual inspection of rockduster.
 - a. Check plug and leads.
 - b. Check for loose or missing panel bolts.
 - c. Check breaker.
 - d. Check length and condition of hose.
 - e. Correct and/or report all unsatisfactory or hazardous conditions to responsible person.

OPERATIONAL

1. Move equipment and cables necessary to dust faces.
2. Check with mechanics and other personnel that may be affected before dusting.
3. Replace curtain torn down while rockdusting.
4. Leave 15 bags of dust at new power centers.
5. Dust feeder and tailpiece each night (unless belt is being extended)
6. Dust tool slide, unit chargers and subs after power move.
7. Rock duster is to be hung out of harms way and not under high voltage.
8. Take all empty bags to designated trash location.
9. Do not run over cables.

SUPERVISOR SECTION FOREMAN, THIRD-SHIFT FOREMAN

- Correct all hazards, violations, and work inefficiencies observed or reported ASAP.
- Investigate all dimensions of loss that occur in your area of responsibility: injuries, violations, equipment damage, and lost work time.
- Ensure that hourly employees genuinely participate in loss investigations.
- Review each loss investigation for quality, ensuring that the following four points are addressed.
 - ➔ Identify the real root cause and not a symptom.
 - ➔ Ask “why?” at least five times to ensure that you are dealing with the root cause.
 - ➔ The root cause and recommendation have to “match”.
 - ➔ Make recommendations which will eliminate the root cause.
- Follow-up on your loss investigation recommendations to ensure that the recommendations are implemented as described on the loss investigation report.
- During the first part of each shift ask employees if there were any problems concerning their standards.
- At least once each month observe each employee performing their pre-operational standards, and give feedback regarding their performance
- Observe the operational standards of your employees throughout the shift and periodically give feedback to your employees regarding maintenance of these standards.

- Observe and enforce Company policies and procedures.
- Effectively communicate business information to your employees. First-day-back meetings must be conducted weekly. Return any questions or comments to your department head.
- A pre-shift and on-shift examination of the section should be done.
- Check sights and engineering spads.
- Mark several locations with your initials, date, and time of inspections.
- Smoke search (once each week)
- Review the production report, mine map, plans, and the MET equipment.
- Sign the pre-shift book.

**SUPERVISOR
FIRST AND SECOND SHIFT
MINE AND MAINTENANCE FOREMAN**

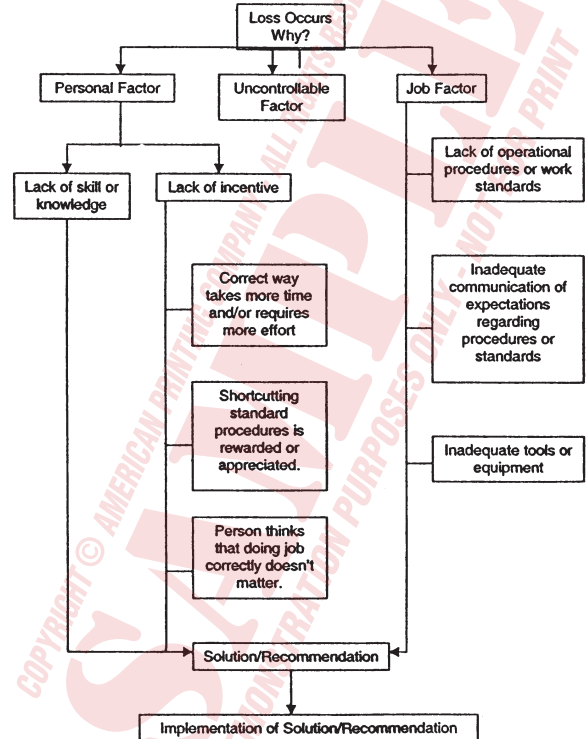
- Correct all hazards, violations, and work inefficiencies observed or reported ASAP.
- Ensure that dimensions of loss which occur in your area of responsibility are investigated: injuries, violations, equipment damage, and lost work time.
- Review each loss investigation in your area of responsibility for quality, ensuring that the following four points are addressed.
 - ➔ Identify the real root cause and not a symptom.
 - ➔ Ask “why?” at least five times to ensure that you are dealing with the root cause.
 - ➔ The root cause and recommendation have to “match”.
 - ➔ Make recommendations, which will eliminate the root cause.
- Give feedback on each loss investigation regarding “quality” to those supervisors who conduct the investigation.
- At least once a week follow up with your direct reports on how their employees are performing their pre-operational standards.
- At least once a month observe five employees performing their operational standards during the shift and give feedback regarding their performance.
- Observe and enforce Company policies and procedures.

- Effectively communicate business information to your direct reports. Review any questions or comments with responsible managers.

SUPERVISOR DEPARTMENT HEAD

- Correct all hazards, violations, and work inefficiencies observed or reported ASAP.
- Ensure that all dimensions of loss, which occur in your area of, responsibility, are investigated: injuries, violations, equipment damage, and lost work time.
- Review each loss investigation for quality, ensuring that the following real four points are addressed.
 - ➔ Identify the real root cause and not a symptom.
 - ➔ Ask “why?” at least five times to ensure that you are dealing with the root cause,
 - ➔ The root cause and recommendation have to “match”.
 - ➔ Make recommendations, which will eliminate the root cause.
- Give feedback on each loss investigation regarding “quality” to your direct reports.
- At least once a week follow-up with your direct reports on how employees in your area of responsibility are performing their pre-operational standards.
- At least once a month observe five employees performing their operational standards during the shift and give feedback regarding their performance.
- Observe and enforce Company policies and procedures.
- Effectively communicate business information to your direct reports. Review any questions or comments with responsible managers.

ROOT CAUSE FLOW CHART



ROOT CAUSE DEFINITIONS

PERSONAL FACTOR

1. LACK OF SKILL OR KNOWLEDGE

This root cause is pretty well understood and self explanatory. The loss occurred simply because the employee lacked the proper training or ability to do the job correctly. Poor judgement due to lack of experience is also a factor.

2. LACK OF INCENTIVE

Under the category "LACK OF INCENTIVE", we have three root causes. All of these are based on lack of incentive or proper, versus improper, motivation on the part of the employee. In other words, he could do the job correctly, but doesn't.

a. THE CORRECT WAY TAKES MORE TIME OR REQUIRES MORE EFFORT.

This root cause is based on the employee's attitude toward the amount of time required or physical effort. The employee knows it is easier and possibly quicker to take shortcuts. He is rewarded immediately because less time and/or effort was used in completing his task. To him this was worth the additional risk.

b. SHORTCUTTING STANDARD PROCEDURE IS REWARDED OR APPRECIATED.

This root cause is based on the employee's perception of his supervisor's attitude toward correct procedures. The employee feels that his supervisor prefers shortcuts for sake of

production and is more concerned with getting the job done quickly as possible, rather than following correct procedures.

c. DOING THE JOB CORRECTLY DOES NOT MATTER.

This root cause is also based on the employee's attitude and his perception of his supervisor's attitude toward correct procedures. This root cause means there is no reward for doing job correctly or any corrective action for doing it incorrectly. The employee feels that doing the job correctly is not important because the supervisor has not said anything to reinforce good job performance or correct poor job performance.

JOB FACTOR

1. LACK OF OPERATIONAL PROCEDURES FOR WORK STANDARDS.

This root cause is used when a procedure or standard is not in place or is inadequate in preventing a loss from occurring.

2. INADEQUATE COMMUNICATION OF EXPECTATIONS REGARDING PROCEDURES OR WORK STANDARDS.

This root cause is used when the work standard or operational procedure was in place but the employee was not aware of it or the employee did for use.

- Poorly designed for job.
- Not maintained sufficiently to effectively do the job it was intended for.

- c. Not the correct tool or equipment for the job.

UNCONTROLLABLE FACTOR

Uncontrollable factor is the root cause used if the loss occurred and cannot be prevented by any reasonable controls, procedures or policies.

POSSIBLE CAUSE(S) OF A LOSS: THIRD SHIFT PRODUCTION

Personal Factor

Lack of skill/knowledge

Person can't do job according to Company standards because he (she) doesn't know how to do the job.

Example: Person is sent to put up key hole plates for next belt lay. Although person is able to operate roof bolter, he (she) is not familiar with proper placement of key hole plates.

Skills training solution

Lack of incentive

Person could do job correctly but has not incentive to do job according to standards.

Why?

- The correct way takes more time or requires more effort. Example: Person operating scoop has breaker knock on scoop which is very close to rib. He (she) can walk around to back of scoop or crawl over top of scoop and put breaker up.
- Shortcutting standard procedures is rewarded or appreciated. Example: After a power move, a person has the power put up and leaves the area to go to another Job site without guarding the high voltage or putting down mats at the power center.

- Person thinks that doing job correctly does not matter. Example: On some days, a belt mover checks the tailpiece after a belt move to ensure everything is correct and supervisor says nothing. On other days, he (she) does not check the tailpiece and the supervisor says nothing.

Solution is some way of helping person understand why correct job performance is important: and supervisor making correct job performance important.

Job Factor

- Lack of operational procedures or work standards. Example: Person injures lower back while moving "Y strainer" due to lack of adequate holding points for moving.
 - Inadequate communication of expectations regarding procedures or work standards. Example: Supervisor does not tell rockdusters to catch up blanket dusting on a unit that is behind.
 - Inadequate tools or equipment.
 - Availability
 - Design
 - Maintenance
 - Use
- Example: Three wheelers/scoops not in safe working condition and using 14-chain to pull power box even though 3/8" is available.

Solution is development of operational procedures, communication of work expectations, and/or making sure that proper tools or equipment is present and used correctly.

POSSIBLE CAUSE(S) OF A LOSS: THIRD SHIFT/BELTS

Personal Factor	Job Factor
<p>Lack of skill/knowledge</p> <p>Lack of incentive</p> <p>Person can't do job standards because he (she) doesn't know how to do the job.</p> <p>Example: A crew sets a tailpiece using three jacks to hold in place instead of four. The crew doesn't know that three jacks aren't enough to adequately hold tailpiece in place.</p> <p>Skills training solution</p>	<p>Lack of operational procedures or work standards. Example: No work standard established that requires haul truck beds to be in lowered position before moving.</p> <p>Inadequate communication of expectations or work standards. Example: No work standard established that requires proper guarding of high voltage cable after a power move.</p> <p>Inadequate expectations regarding procedures or work standards. Example: Not communicating to crew that standard is to crib under feeder when setting feeder on tailpiece; not explaining to crew that cribbing is necessary to keep jacks from bleeding off, causing feeder to sink down on tailpiece and lock up.</p> <p>Inadequate tools or equipment</p> <ul style="list-style-type: none"> • Availability • Design • Maintenance • Use <p>Example: Using improper sling to hoist equipment or materials. Example: Not wearing safety glasses when cutting or striking objects.</p> <p>Solution is development of operational procedures, communication of work expectations, and/or making sure that proper tools or equipment is present and used correctly.</p>
<p>Person could do job correctly but has no incentive to do job according to standards.</p> <p>Why?</p> <ul style="list-style-type: none"> • The correct way takes more time or requires more effort. Example: Splicing belt or doing other work on belt without locking or tagging out cathead. • Shortcutting standard procedures is rewarded or appreciated. Example: Energizing the power on a face substation after a move before the high voltage cable is hung properly; crew is shorthanded and trying to get running as soon as possible • Person thinks that doing job correctly does not matter. Example: Sometimes laborer replaces the guards on belt tailpieces after an extension – the supervisor says nothing. At other times, laborer doesn't replace the guards – supervisor says nothing. Laborer then thinks that replacing the guards is not important because the supervisor says nothing in either case. <p>Solution is some way of helping person understand why correct job performance is important and supervisor making correct job performance important.</p>	

POSSIBLE CAUSE(S) OF A LOSS: MAINTENANCE

Personal Factor	Job Factor
<p>Lack of skill/knowledge</p> <p>Lack of incentive</p> <p>Person can't do job according to Company standards because he (she) doesn't know how to do the job.</p> <p>Example: A new employee who is not familiar with the Fletcher roof bolter was asked to repair the panic bar. Due to his lack of knowledge, he was unable to repair the roof bolter properly.</p> <p>Skills training solution</p>	<p>Lack of operational procedures or work standards. Example: A mechanic is changing a water hose on the miner and is only partially under the head. He doesn't block it up because there is no standard that requires blocking unless you're completely under the head.</p> <p>Inadequate communication of expectations regarding procedures or work standards. Example: After splicing a cable, the mechanic leaves the butane tank along the rib; mechanic was never told about the requirement to hang up the butane tank in the shack.</p> <p>Inadequate tools or equipment</p> <ul style="list-style-type: none"> • Availability • Design • Maintenance • Use <p>Example: A mechanic is replacing a motor on a scoop. While lifting the motor out with a defective come-along the come-along strips and the motor barely misses the mechanic's foot.</p> <p>Solution is some way of helping person understand why correct job performance is important; and supervisor making correct job performance important.</p>
<p>Person could do job correctly but has no incentive to do job according to standards.</p> <p>Why?</p> <ul style="list-style-type: none"> • The correct way takes more time or requires more effort. Example: The power knocks on a piece of equipment due to cable damage. The mechanic tapes the cable before he makes a trip to the power center to lock and tag it out. • Shortcutting standard procedures is rewarded or appreciated. Example: The mechanic doesn't check the panel cover after working on it because he feels his supervisor will appreciate him getting back to the run quicker. • Person thinks that doing job correctly does not matter. Example: A mechanic is observed splicing a car cable on two different occasions. Once he locks and tags it out and once he doesn't. His foreman doesn't say anything either time. <p>Solution is some way of helping person understand why correct job performance is important; and supervisor making correct job performance important.</p>	

POSSIBLE CAUSE(S) OF A LOSS: PRODUCTION

Personal Factor

Lack of skill/knowledge

Person can't do job according to Company standards because he (she) doesn't know how to do the job.

Example: An employee is sent to a unit to drive a snuffel car (21SC) and the only type he (she) has ever driven is a 10SC.

Skills training solution

Job Factor

Lack of incentive

Person could do job correctly but has no incentive to do job according to standards.

Why?

- The correct way takes more time or requires more effort. Example: Scoop operator puts scoop on charge but fails to hook up ground clamp and inspector writes citation.

- Shortcutting standard procedures is rewarded or appreciated. Example: After cleaning the tailpiece (which had gobbled out), the car drivers hurry back to their cars to start hauling coal before they put the guards back on the tailpiece.

- Person thinks that doing job correctly does not matter. Example: Roof bolter operator always does a good job pulling up the bolts in pattern. One day after getting way behind, he (she) spreads the pins to get caught up. In either case, nothing is ever said by the supervisor.

Solution is some way of helping person understand why correct job performance is important, and supervisor making correct job performance important.

- Lack of operational procedures or work standards. Example: We get a citation for not having a canopy tag on a shuttlecar canopy but the operator has no standard to cover this.
- Inadequate communication of expectations regarding procedures or work standards. Example: A new pin man gets a citation for failing to have wing curtain in proper location. He had misunderstood initial instructions, which had been given in a hurry.
- Inadequate tools or equipment.
 - Availability
 - Design
 - Maintenance
 - Use
 Example: Citation written when inspector observed teeth marks on O₂ bottle gauges because employee used channel locks, proper wrench wasn't provided.

Solution is development of operational procedures, communication of work expectations, and/or making sure that proper tools or equipment are present and used correctly.

POSSIBLE CAUSE(S) OF A LOSS: PRODUCTION SUPPORT

Personal Factor

Lack of skill/knowledge

Person can't do job according to Company standards because he (she) doesn't know how to do the job.

Example: A new employee finishes his 45 days as a newly employed, inexperienced miner. Then his supervisor sends him to build seals which he has never built. He doesn't know difference between seals and brattices.

Skills training solution

Lack of incentive

Person could do job correctly but has no incentive to do job according to standards.

Why?

- The correct way takes more time or requires more effort. Example: A timberman sets timbers on loose coal because it saves time and effort by not cleaning up the loose coal first.

- Shortcutting standard procedures is rewarded or appreciated. Example:

An employee builds an overcast in a hurry because he thinks his boss will appreciate him getting the job done sooner. However, when the overcast is finished, it is substandard and doesn't hold the air as it should.

- Person thinks that doing job correctly does not matter. Example: On some days, the production crew does their pre-operational check on their scoop and other days they don't. The foreman never says anything in either case.

Solution is some way of helping person understand why correct job performance is important and supervisor making contact job performance important.

Job Factor

- Lack of operational procedures or work standards. Example: Bratticeman uses hollow blocks to build brattices on main line because there is no work standard established that requires solid blocks.
- Inadequate communication of expectations regarding procedures or work standards. Example: Not instructing employees to check water in scoop batteries results in set of batteries being ruined while charging them.
- Inadequate tools or equipment.
 - Availability
 - Design
 - Maintenance
 - Use
 Example: Bratticeman is cutting blocks with a ball peen hammer rather than a brattice hammer, wasting blocks and requiring more time and effort.

Solution is development of operational procedures, communication of work expectations, and/or making sure that proper tools or equipment are present and used correctly.

Guidelines for Investigation of a Case of Equipment or Property Damage

