Company Name:	**Equipment/Job Identification: DBT ROOF BOLTER** **Type of Equipment: (SINGLE HEAD)** **Make:** **Model: LRB15AR (SQUIRMER)** **Year:** **Use:**
Mine Name:	
Date of Analysis: JANUARY 10-12, 2006	

Pre-Assessment

- **List pre-requisites here**
  Roof Control Plan
  Federal and State Regulations
  Videos Anatomy of Roof Bolting
  Company Policies
  First Aid

Duty 1: Start of Shift

Learner will demonstrate how to conduct start of shift activities. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough procedure includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Get dressed		**1**		
• **Blouse pants**		**1**		**All clothing should be snug fitting, especially shirt sleeves**
Obtain PPE	**Lost eye, hearing damage, personal injury, knee injuries**	**2**		**Safety glasses, hearing protection, gloves, knee pads, hard hat, safety boots**
Check SCSR	**Protects you against the aftermath of a mine fire or explosion or oxygen deficient atmosphere**	**3**		**Self-rescuer must either be worn or within 25 feet of you at all times**
• **Pull out of case**	**Same**	**3**		
• **Check for physical damage**	**Same**	**3**		**Seals and dents**
• **Check moisture indicators**	**Same**	**3**		**Indicators should be blue when**

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
				good
Obtain methane detector	Not having your methane detector could slow production; also there is a possibility that the proper methane checks would not be made and that could cause an ignition or explosion	3		
• Check for physical damage	Same	3		Lens, dents, screen blockage,
• Test battery	Same	3		
○ Push both buttons to test	Same	3		3.4 minimum reading
• Test electrical zero	Same	3		
○ Push right button	Same	3		Reading should be 0.0 or 0.1
Obtain cap lamp	Impossible to work in a mine without a cap lamp	3		
• Check water level		1		
• Check two beams		1		
• Check lens lock		1		
• Check cord		1		Abrasions, cuts
Check white board and assistant notes	May slow production, due to you not obtaining supplies for the shift, may miss important safety information	2		Tools needed Supplies needed Roof conditions Equipment conditions Mining cycle location
Obtain needed supplies				
• Obtain Steels	Can't drill if you don't have	2		
• Obtain Wire		1		
• Obtain Signs	Some could travel under unsupported roof	3		
• Obtain Bits	Can't drill if you don't have	2		
• Obtain Filters		1		
• Obtain Nails		1		
• Obtain Spads		1		
Obtain hand tools		1		Hammer, razor knife, adjustable wrench channel locks, 6 inch flat screw driver, electrical tape and Allen wrench
Check in/tag in		1		

Duty 2: Pre-Op Mantrip

Learner will demonstrate how to conduct a safe and thorough pre-operational inspection of the mantrip. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough pre-operational inspection includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Check lights		**1**		
Check panic bar	**Tram could stick and machine could run away, probability of serious injury**	**2**		
Check brakes	**No compromise on brakes Could cause a run-away**	**3**		**Check brakes second time on the ramp prior to going into the pit**
Check charge indicator, if applicable		**1**		
Check for fire extinguishers		**1**		**Two fire extinguishers**
Check for jack and lifting bar		**1**		
Clean reflectors		**1**		
Clean off debris		**1**		

Duty 3: Enter Mine

Learner will demonstrate how to conduct the safe and thorough process of entering the mine. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough procedure includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Conduct travelway examination				
• **Put safety glasses on**		**1**		
• **Observe for mobile equipment**	**May prevent a crash or injuries**	**2**		
• **Check roof conditions**	**Roof falls are Number 1 killer of underground coal miners; even a small piece of rock could cause serious injury**	**2**		**Check for cracks, loose rock, taking on weight, water**
• **Check for loose ribs**		**1**		**Check for overhang Check for ledges Check for spalling**
• **Look for uneven bottom**	**Could break your wrist, throw you into roof, could cause you to loose control of your vehicle**	**2**		**Rough spots, bumps in the road Soft spots/low spots**
• **Look for roadway debris**	**Could break your wrist, throw you into roof, could cause you to loose control of your vehicle**	**2**		**Look for crib blocks, rock, banding material, cable, bolts, and knocked out timbers**
• **Check for damaged bolts**		**1**		
• **Correct and/or report any unsafe conditions**	**Don't set a trap for someone else**	**2**		
• **Exit mantrip**		**1**		
• **Be aware of crawling hazards**		**1**		
Obtain glue	**Slow production time**	**2**		
Drop glue off at intake supply car		**1**		
Travel to return supply car to drop off glue		**1**		
• **Take canvas down**		**1**		**Anytime back check/line curtain is taken down, replace the canvas after traveling through**
• **Replace canvas**	**Methane could accumulate very quickly if canvas is not replaced**	**2**		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Travel back to intake and park mantrip in the intake		1		Restore canvas Use only permissible mantrip
Contact section foreman for bolting cycle		1		
Load supplies if needed		1		
Empty dust box	Failure to empty dust box could cause silica to contaminate ventilation system; also it will slow drilling down if dust is not being carried away from the bit	2		
• Face bolter inby	Silica, health hazard	2		Stay out of this dust
• Open box		1		
• Stay on the intake side box	Silica, health hazard	2		
• Tap the filter out	Silica, health hazard	2		
• Replace filters if necessary		1		Once filters can not be tapped out, replace filters
• Clean box out with hoe		1		
• Clean seal		1		
• Close door		1		

Duty 4: Conduct Workplace Exam

Learner will demonstrate how to conduct a safe and thorough workplace examination. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough workplace examination includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Look for section foreman pre-shift date, time, and initial		**1**		**Workplace exam must be conducted before a bolter moves into a new place**
Check line curtain	**Methane could accumulate very quickly if canvass is not replaced Explosion hazard**	**2**		
Examine roof conditions	**Roof falls are Number 1 killer of underground coal miners; even a small piece of rock could cause serious injury**	**3**		**Check for cracks, loose rock, taking on weight, water Scale loose top with slate bar, if necessary Spot bolt any area that can't be scaled**
• **Start at outby corner of last open crosscut**		**1**		
Check for loose ribs		**1**		**Cracks Ledges Spalling Support or scale any loose ribs**
• **Start at outby corner of last open crosscut**		**1**		
Check for methane with spotter, and probe where necessary	**If you don't make a methane check possibility of ignition or explosion**	**3**		**1 foot from face/roof/rib If magnet on head of miner is not used you must use a probe**
Check for damaged bolts and wide bolt spacing		**1**		
Correct and/or report any unsafe conditions	**Don't set a trap for anyone else Communicate**	**2**		
Ensure danger unsupported roof signs are hung where roof is unsupported	**Roof falls are Number 1 killer of underground coal miners; even a small piece of rock could cause serious injury**	**3**		**In low coal, it is very easy to accidentally travel unsupported roof. These signs make it much easier to identify unsupported roof.**

Duty 5: Pre-Op of Roof Bolter

Learner will demonstrate how to conduct a safe and thorough pre-operational inspection of a roof bolter. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough pre-operational inspection includes the following job steps:

Check cable		**1**		**4 splices, 5 to end the shift Adequate cable for the shift Adequately hung Nicks, abrasions**
• **Pull from reel if necessary**		**1**		
Check for accumulations		**1**		**Coal dust, spilled oil, grease, empty boxes, garbage, etc.**
Check fire suppression		**1**		**One in kitchen, one in the front of the machine near the operator station Do not activate**
Check panic strips	**Shut the machine down if you are in a panic situation; also could shut the machine down if it starts to pin you**	**2**		**Check all three panic strips**
• **Start the machine and tap**	**Shut the machine down if you are in a panic situation; also could shut the machine down if it starts to pin you**	**2**		
Check controls		**1**		
• **Ensure controls are self-centered**		**1**		**On some older machines the cable reel lever may not self-center**
• **Check for excessive play**		**1**		
• **Keep linkage free of obstructions**		**1**		
Check lights		**1**		**Report any lights that are out to foreman or mechanic**
Check tires		**1**		**Look for missing tire tread**
Check for tools		**1**		**Rock bar, hammer, torque wrench, Probe**
Check suction		**1**		

Duty 6: Tramming/Place Change

Learner will demonstrate how to conduct a safe and thorough process of tramming/place change. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough process includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Ensure everyone is clear	Serious injury or death, machine have been know to move erratically or unexpectedly	3		
Check inch tram		1		
Check ATRS	Protects you from roof falls while bolting	2		
• Raise ATRS and pressurize	Protects you from roof falls while bolting	2		Be observant for broken pins, cracks and bleed-offs
• Check for bleed-off	Protects you from roof falls while bolting	2		Bleed- off is when the ATRS will not stay pressurized when against the roof
• Lower ATRS		1		
Check boom		1		
Check rotation		1		
Check suction		1		
Raise stab jack		1		
Turning the machine right and left, pull ample slack cable from reel	Failure to have slack will result in cable damage	2		
Ensure gas tests have been made in face area before entering last open crosscut	Failure to make gas test can result in ignition or explosion	3		See workplace exam
Get in kitchen	Body parts can be crushed if left outside of cab	2		
Ensure entire body is in kitchen	Body parts can be crushed if left outside of cab	2		Keep all body parts inside of kitchen
Check cable reel to ensure that it is off	Cable can reel up quickly, can cause serious injury to anyone around the cable	2		
Center machine in entry		1		
Stay as low as possible in the kitchen	Head and neck injuries, strains	2		Be aware this machine may teeter and roof out

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Look ahead for obstruction on your travelway	**Machine may teeter causing head, neck and back injuries while tramming over debris and obstructions**	**2**		**Overhead clearance Bottom obstructions**

Duty 7: Tramming Bolter from Inch Tram Controls

Learner will demonstrate how to conduct a safe and thorough procedure of tramming bolter from inch tram controls. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough procedure includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Ensure cable reel is disengaged	**Prevent cable damage and serious injury to people working around the cable**	**2**		
Locate last row of bolts	**Roof falls are Number 1 killer of underground coal miners; even a small piece of rock could cause serious injury**	**3**		
Make visual assessment of the cut	**Visual assessment is your only and best assessment**	**3**		
Inch tram forward to last row of bolts		**1**		
Tram bolter so that the right rear corner is closer to the right rib	**Improper positioning will allow exposure to unsupported roof and takes away your protection from your ATRS**	**3**		**Have roof control plan diagram showing the placement of the machine in the roof bolter cycle**
Position the drill head of the machine so it is within 4 feet of the last row of bolts or closer, and within 4 feet of the rib or closer	**Improper positioning will allow exposure to unsupported roof and takes away your protection from your ATRS**	**3**		**Roof conditions will dictate the exact distance of the bolt spacings**

Duty 8: Drilling Test Hole

Learner will demonstrate how to conduct a safe and thorough procedure of drilling test holes. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough procedure includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Drill proper length test hole according to roof control plan	Test holes reveal hidden defects in the roof	3		You can always drill higher than the roof control plan requires. Review approved roof control plan and/or mine policy for exact location of test holes
Watch for steel to jump	Determines if there is bed separation or defects in the roof	3		This comes with experience Jumping indicates bed separation
Look, listen, and feel for changes in the roof	Roof falls are Number 1 killer of underground coal miners; even a small piece of rock could cause serious injury	3		This comes with experience The roof may sound drummy or hollow. Drilling sound will change as you go through different laminations
Measure test hole		1		
• Drag tip of tape measure against side of hole while withdrawing		1		Catches with the tip of the tape measure indicates separation or cracks
Mark test hole	Legal requirement	2		Paint test hole or bolt installed in test hole This allows people to know where test holes are located.
• Leave test hole open and identify	Legal requirement	2		Optional, to install a correct size bolt
• Install proper length bolt and identify	Legal requirement	2		
Notify section foreman of roof defects to determine supplemental support if you are unsure	Defects in the roof could indicate inadequate support , could set a trap for someone else	3		Will determine course of action

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Determine the length of bolts	To prevent falls above anchorage Could cause serious injuries of death	3		All bolts must anchor in solid roof. See roof control plan

Duty 9: Drilling and Installing Bolts

Learner will demonstrate how to conduct a safe and thorough process of drilling and installing bolts. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough process includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Visually examine the roof	Roof falls are Number 1 killer of underground coal miners; even a small piece of rock could cause serious injury	3		If roof is visibly defective, do not sound Look for dribbling, cracks, cutters, clay veins, horsebacks, etc.
Advance bolter not more than 4 foot from last row of bolts	Roof falls are Number 1 killer of underground coal miners; even a small piece of rock could cause serious injury	3		Do not expose yourself to unsupported roof
Raise ATRS	Without raising the ATRS it is difficult to position bolter and to get your spacing correct. Poor spacing could result in inadequately supported roof	3		ATRS must make contact with the roof
Properly position bolter	Failure to properly position the roof bolter could expose you to unsupported roof	3		Within 4 feet from the rib and the last row of bolts See diagram from the roof control plan on bolting sequence
Set canopy and stab jack	Failure to set canopy and stab jack could result in machine drift and loose rock striking you	3		Make sure the canopy and stab jack are pressurized
Take assembled bolt, bearing plate and resin	Slows production down, causes extra work	2		
Sound roof	Without sound the roof individual could be struck by loose rock	3		Unless obviously bad Use suitable device to sound roof Listen for drummy or hollow sound
Keep all body parts away from the drill boom	Getting caught by the drill boom can cause crushing or fatal injuries	3		
Lower drill head to bottom		1		
Place starter steel in chuck		1		
Raise the head until bit contacts roof	Starting to drill before the drill is in contact with the roof can cause the drill steel to swing uncontrollably resulting in injuries	2		Drill steel must be straight or plumb to correctly drill your hole

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Remove your hand from the drill steel	Could cause broken arm, torn ligaments, amputation. Also small pieces of rock can be dislodged causing hand and arm injuries	3		
Slowly rotate steel until bit penetrate rock while raising the drill head	Drilling too quickly without penetration can cause the drill steel to swing uncontrollably causing injuries	2		
Increase drill speed		1		
Increase up-pressure so that steel penetrates rock without clogging		1		
Drill starter hole to proper depth		1		Look and listen for changes in the roof
Lower drill head to bottom with slow rotation and remove starter steel		1		Varies with type of steel
Insert finishing steel into existing hole		1		
Insert pusher steel into the chuck		1		
Allow finisher steel to drop and couple with the pusher steel	Potential pinch point between the steels, glove may get caught causing twisting injuries to hand and arm	2		
Remove your hand from the drill steel	Could cause broken arm, torn ligaments, amputation	3		
Increase drill speed and pressure to drill the maximum depth	Failure to drill the hole to proper length could result in hangers or improper grouting	2		Pusher steel must be marked to ensure the proper hole depth which is 1 inch deeper than bolt length to be installed
Slow rotation		1		
Lower drill head to bottom		1		
Remove steels	Steel section can fall out of the roof causing serious hand injuries	3		Do not put your hand or arm directly underneath a hole with steels in them
Place steel in steel quiver		1		
Insert resin into hole	The bolt won't anchor	2		
Insert bolt with plate already assembled	Could result in "immediate" roof failure	2		
Using the boom, push bolt 1 inch from roof	Failure to follow this procedure could reduce the effectiveness of the bolts and cause roof falls	2		No rotation should be used at this point

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Drop boom		1		
Insert wrench		1		Wrench may not be used with hex steels
Seat wrench firmly on bolt	Improper mix of resin and ignition source (sparks)	2		
Rotate maximum speed for recommended mix time	Without a proper mix resin will not set up correctly, increasing the danger of roof falls in the area	3		Over mixing can be just as bad as under mixing. Count by saying one thousand one, one thousand two, etc.
Stop rotation and push to the roof with maximum thrust	Ignition source if bolt comes in contact with bearing plate during rotation	3		
Hold pressure for recommended hold time	Bearing plate will become loose and you will not have maximum plate load that could lead to roof falls	3		Spin time and hold thrusts time are on each box of resin
Drop boom with wrench		1		
First bolt in each cut must be torque	Ensures resin bolt is installed properly and makes sure your resin is setting up. Failure to do this could result in inadequately supported roof without your knowledge	2		See roof control plan
Follow Roof Control Plan for bolting sequence	Roof falls are Number 1 killer of underground coal miners; even a small piece of rock could cause serious injury	3		Following the pre-established roof control bolting sequence gives you maximum protection from your ATRS and already installed bolts
Set bolter so that the right rear corner is closer to the right rib	Improper positioning will allow exposure to unsupported roof and takes away your protection from your ATRS	3		Have roof control plan diagram showing the placement of the machine in the roof bolter cycle
Make gas test at intervals not to exceed every 20 minutes	Methane accumulations could cause an ignition or explosion	3		
Extend line curtain as bolts are advanced	Methane could accumulate Could cause an ignition or explosion	2		Normally it is acceptable to have curtain up to the rear of the bolter unless concentration of methane requires the canvas to be closer
Keep an unsupported roof sign behind the curtain	Persons could unknowingly crawl into unsupported roof and incur injury or death	3		In low coal, it is very easy to accidentally travel unsupported roof. These signs make it much easier to identify unsupported roof.

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Hang curtain to within 10 feet of the face when bolting is concluded	Prevents accumulation of methane	2		Normally it is acceptable to have curtain up to within 10 feet of the face unless concentration of methane requires the canvas to be closer Makes the area safer for the scoop operator
Bending 6 foot bolts				
• Place bolt on slight angle with head end on bottom		1		
• Place knee on the crimp point		1		
• Press with your knee		1		
• Pull the end of the bolt upward until you reach 45 degree angle		1		
• Pick the head of the end of the bolt up		1		
• Place your knee on the crimp		1		
• Press with your knee		1		
• Pull the head end until you reach a 90 degree angle				The bolt when pulled properly will appear like a “U” shape
• Install plate	Could result in immediate roof failure	2		
Bending 42 inch or similar bolts				
• Place bolt end in square stock on the bolter designed for bending		1		
• Slide bolt in to the desired length		1		
• Push head end down toward bottom		1		
• Stop when you have about a 25 degree bend		1		Over bending will create drag while inserting bolt into hole. This makes it very difficult to get the bolt inserted, and may result in hangers
• Install plate	Could result in immediate roof failure	2		

Duty 10: Installing a Control Rod

Learner will demonstrate how to properly install a control rod. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough procedure includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
*Follow all procedures outlined in drilling and installing bolts, except using a bearing plate	*	*		*
Install control rod at intervals not to exceed 100 feet in solid roof		1		The installation of control rods are not required where full grouting can be observed at the intervals required in the roof control plan
Install control rods at 50 foot intervals in subnormal roof		1		
Drill control rod hole to the same depth as a normal roof bolt hole		1		Determines if there are voids in the roof into which resin is being lost
Drill control rod hole out of pattern		1		
Install a normal length bolt without a bearing plate		1		This allows you to measure up into the hole for resin
Insert the bolt to within 1 inch of the roof		1		
Mix resin according to manufacturer recommendations		1		
Look for a show of resin at the bolt head		1		
Contact foreman if there is no show of resin	Failure to notify the foreman could result in an area that is bolted not being adequately supported	3		Adverse or unusual roof conditions must always be reported to the foreman

Duty 11: End of Shift Activities

Learner will demonstrate how to conduct end of shift activities. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough end of shift activity includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Assure danger unsupported roof signs are hung	Roof falls are Number 1 killer of underground coal miners; even a small piece of rock could cause serious injury	3		In low coal, it is very easy to accidentally travel unsupported roof. These signs make it much easier to identify unsupported roof.
Hang line canvas to the second to last full row of bolts outby the face	Ignition or explosion	2		
Tram bolter to supply cars		1		
Hang bolter cable, if necessary	Running over cables could cause a shock hazard and slow production due to time needed to find damaged spots and repair	2		
Check with foreman for further instructions		1		Let foreman know what supplies are needed Inform foreman of any roof changes/machine problems
Load bolter with supplies		1		
Gather and remove any damaged resin and used bits	If the resin gets into the water or people accidentally comes into contact with the resin they could have an allergic reaction.	2		Put bits in used bit container Dispose damaged resin in garbage container Review the MSDS sheet with the trainee
Go to mantrip and conduct head count	You don't want to leave anyone in the mine at the end of the shift	2		
Travel outside		1		
*Look for hazards in travelway				*See entering mine
Talk to cross shift bolters about the conditions and bolter maintenance	Failure to communicate with your cross shift could set someone up for an accident or slow production	2		This could be done in the section, on the travelway going out, or outside
Park mantrip in the pit shop		1		
Set panic brake	Zero potential for unexpected movement	2		
Shut light off		1		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Place on charge	**Failure to charge the mantrip could result in unavailability and seriously affect production**	**2**		
Go directly to shower house and tag out		**1**		
Put your light on charge	**It would be hard to work next day if you don't have a properly charged light**	**2**		
Place methane spotter on charge	**A methane spotted that doesn't work could slow down production, could result in inaccurate readings; explosions or ignitions**	**2**		
Make notations on white board as needed	**Could slow production, may not communicate valuable safety information to your coworkers, may set a trap for someone else**	**2**		

Duty 12: Unusual/Non Routine Activities

Learner will demonstrate how to conduct unusual/non routine activities. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Thorough unusual/non routine activities include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
Gas detection 1 percent or greater				
• **Shut down**	**Machine could act as an ignition source**	**2**		
• **De-energize your machine**	**Machine could act as an ignition source**	**2**		
• **Notify foreman**	**Foreman should be aware of any gas accumulation**	**2**		
• **Follow foreman's instructions to make changes in the ventilation system**	**Foreman should be aware of any gas being moved**	**2**		
• **Retest for gas prior to restarting**	**Machine could act as an ignition source**	**2**		
Gas detection 1.5 percent or greater				
• **Shut down**	**Machine could act as an ignition source**	**3**		
• **De-energize your machine**	**Machine could act as an ignition source**	**3**		
• **Notify foreman**	**Foreman should be aware of any gas accumulations**	**3**		
• **De-energize power to the entire section**	**Any machine could act as an ignition source**	**3**		
• **Follow foreman's instructions to make changes in the ventilation system**	**Foreman should be aware of any gas being moved**	**3**		
• **Retest for gas prior to restarting**	**Any machine could act as an ignition source**	**3**		
Installation of Supplemental Support				
• **Identify signs of roof failure in which supplemental support is necessary**	**Ignoring signs of roof failure could result in serious injury or death and a loss of production.**	**3**		
• **Danger area off**	**Don't set a trap for someone else**	**2**		

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking 1=Important 2=Very Important 3=Critical	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
• *Get instructions from foreman		1		
• Start bolting 8 feet outby in solid roof	Starting too close to roof that is failing could result in a fatality or serious injury	3		
• Position bolter to provide maximum protection with your ATRS	Roof fall injuries and fatalities have occurred while installing supplemental supports	3		
• Install supplemental supports according to plan	Roof fall injuries and fatalities have occurred while installing supplemental supports	3		
• Evaluate roof continuously during any supplemental support installation	Roof fall injuries and fatalities have occurred while installing supplemental supports	3		
• Monitor areas where supplemental supports were installed	Roof fall injuries and fatalities have occurred in previously supported areas	2		Areas inby or outby the supplemental area may need additional attention
Firefighting and Evacuation				
• Roof bolter duties obtain; Fire extinguishers, rock dust, and take to the intake site of the fire	Everyone has to do their part if there is a fire on the section	3		Quick response in attacking a fire lessens the possibility of the fire getting out of control