

Company Name:	Equipment/Job Identification: Joy 14CM Remote Controlled Continuous Mining Machine with attached Mobile Bridge Haulage Type of Equipment: Make: Model: Year: Use:
Mine Name:	
Date of Analysis:	

Pre-Assessment

- **List pre-requisites here**

Proper Equipment
General Safety Training
Ventilation Training
Knowledge of Fire Fighting
Knowledge of Escape Ways
Donning of SCSR
Knowledge of Roof Control Plan
Special Emphasis on Red Zone
Video “The Right Choice”
Knowledge of the Cutting Sequence
Good Attitude

Duty 1: Start of Shift Activities

Learner will explain the importance of the start-of-shift activities. The learner will explain each job step, why they are conducted, any associated risk, and how to implement appropriate controls. Start-of-shift activities include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Change clothes				
Get CSE SR-100				
<ul style="list-style-type: none"> Check indicators 				
<ul style="list-style-type: none"> Check seal and dents 				
<ul style="list-style-type: none"> Remove from pouch monthly 				
Check in/Tag in				
Obtain PPE				Gloves Safety glasses Hearing protection Safety boots Respirator Reflective material on clothing Hard hat
Get detector				Other detectors are available on the section
<ul style="list-style-type: none"> Check battery 				
<ul style="list-style-type: none"> Zero out 				
Get cap lamp with accessory receptacle				
<ul style="list-style-type: none"> Check charger 				On fully charged lamp, gauge will be off
Get streamers				
Meet with foreman				
<ul style="list-style-type: none"> Obtain work assignments 				
<ul style="list-style-type: none"> Discuss bolted/unbolted areas 				
<ul style="list-style-type: none"> Discuss planned belt-ups 				
Enter the mine				
<ul style="list-style-type: none"> Conduct pre-op on mantrip 				The miner operator normally operates the mantrip
<ul style="list-style-type: none"> <ul style="list-style-type: none"> Check lights 				
<ul style="list-style-type: none"> <ul style="list-style-type: none"> Ensure horn works 				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
○ Check foot pedal brake				
○ Check parking/emergency brake				
○ Check fire Extinguisher				
○ Get rock bar, pump jack, and handle				
○ Check tires				
• Get on mantrip				Ensure mantrip has been pre-oped
○ Put on safety glasses before mantrip moves				
• Check travel way conditions				Always examine work area and work place for hazards
• Tram mantrip to face				
○ Use dynamic brake when going downgrade				
○ Travel at speed consistent with roadway conditions				
○ Park out of the way				
○ Set emergency brake				
○ Turn power switch off				

Duty 2: Hot Seating

Learner will explain the importance of communicating and exchanging information as part of “hot seating (1st to 2nd shift) activities. The learner will explain each job step, why they are conducted, any associated risk, and how to implement appropriate controls. Hot seating activities include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Check travel way conditions				Always examine work area and work place for hazards
Talk to other continuous miner operator				
<ul style="list-style-type: none"> Discuss condition of machine 				
<ul style="list-style-type: none"> Discuss problems with remote, shutdown switch, etc. 				
<ul style="list-style-type: none"> Discuss time frame for gas tests, if necessary 				
<ul style="list-style-type: none"> Discuss roof conditions 				
<ul style="list-style-type: none"> Discuss changes in bottom 				Soft, wet and broken up
Examine roof and rib				
Look for check curtains				
Put red streamers up				Second row back and each side of the miner No one may go past streamers when miner is in cutting cycle
Check for unsupported roof signs				One should be placed behind the curtain Placed at all approaches to unsupported areas

Duty 3: Starting Fresh

Learner will explain the importance of communicating and exchanging information as part of the “starting fresh (day shift) activities. The learner will explain each job step, why they are conducted, any associated risk, and how to implement appropriate controls. The starting fresh (day shift) activities include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Check work area conditions				Always examine work area and work place for hazards
Talk to mechanic on section				This is part of the required dust parameters examination. The mechanic will do these for you when possible.
<ul style="list-style-type: none"> • Discuss water pressure 				25 PSI minimum
<ul style="list-style-type: none"> • Discuss sprays 				17 sprays minimum per plan
<ul style="list-style-type: none"> • Discuss bits 				
<ul style="list-style-type: none"> • Discuss scrubber duct work and screen cleanliness 				
<ul style="list-style-type: none"> • Discuss whether or not sump has been flushed 				
Talk with foreman				This is part of the required dust parameters examination
<ul style="list-style-type: none"> • Discuss mining sequence 				
<ul style="list-style-type: none"> • Discuss any problems observed 				
<ul style="list-style-type: none"> • Discuss air readings and cut depths 				2 cut sequence 4 cut sequence
<ul style="list-style-type: none"> • Obtain clearance to tram into the face <ul style="list-style-type: none"> ○ Confirm methane exam has been made 				
Tram miner to face				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
• Allow foreman to take scrubber reading				
• Inform bridge crew where you are going and that you are starting up				
• Position yourself behind the miner in crosscut if at all possible				Stay out of miner red zones Discuss red zones for the continuous miner and MB's
• Position yourself in a crosscut ahead of the miner until it passes				Stay out of miner red zones Discuss red zones for the continuous miner and haulage
Start mining				

Duty 4: Conducting Dust Parameter Exam

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

NOTE: Some dust parameter exams may be completed in conjunction with continuous miner pre-op and starting fresh (day shift) activities.

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Check work area conditions				Always examine work area and work place for hazards
De-energize miner				
Put water pressure gage on right side of miner near bull wheels				
Energize machine				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Activate water sprays with remote				
Count how many sprays are in operating condition				17 operation sprays minimum No more than one blocked spray in each bar
Check scrubber sprays				Not part of the 17 – a minimum of two must be in operating condition at all times
Check blocker sprays				
Check water pressure with the scrubber running				25 psi minimum
De-energize miner				
Remove the pressure gage				
Clean out scrubber ductwork and screen				Remove demister cell and flush with water weekly Replace filter screen daily
Hose off top of miner				
Energize miner				
Check fire suppression				
Report results to foreman				Foreman will initial box on side of miner. Foreman will verbally communicate results to other miners. Foreman will require mechanic to pitot the scrubber each shift

Duty 5: Pre-op Continuous Miner

Learner will demonstrate how to conduct a safe and thorough pre-operational inspection of the Joy 14CM RC Continuous Mining Machine. 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	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Check work area conditions				Always examine work area and work place for hazards
De-energize and tag out machine at the load center	Prevent serious injury Miners known to start unexpectedly			
Examine trailing cable	Prevent electrical shock, down time			Wear glove when handling cables
<ul style="list-style-type: none"> Look for Cuts 	Prevent electrical shock, down time			
<ul style="list-style-type: none"> Look for Nicks 	Prevent electrical shock, down time			
<ul style="list-style-type: none"> Look for Splices 	Prevent electrical shock, down time Splices deteriorated over time			Count number of splices Splices must be more than 50' from the miner No more than four splices at beginning of shift No more than five splices at end of shift
Walk around machine				
Look for oil leaks				
Look for missing parts/pieces				
Check to ensure all lights are in place				
Energize machine				
Check to make sure all lights are working				
Check all remote functions to ensure they are working properly	Avoid down time Could cause injury or death			

Duty 6: Tramming/Moving

Learner will demonstrate how to safely tram/move the Joy 14CM RC Continuous Mining Machine with attached mobile bridge haulage. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe tramming/moving the Joy 14CM RC Continuous Mining Machine with attached mobile bridge haulage includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Check travel way conditions				Always examine work area and work place for hazards
Notify front mobile man that you are moving machine to the right side				
Energize machine				
Tram the machine	Machine can continue to move or move unexpectedly resulting in personal/crushing injuries			*CAUTION: THERE ARE TIMES WHEN THERE IS A SLIGHT DELAY WHEN YOU ACTIVATE THE TRAM LEVERS UNTIL THE MACHINE MOVES. CONTINUOUS MINERS CAN CONTINUE TO MOVE (DRIFT) AFTER CONTROL LEVERS ARE RETURNED TO THE NEUTRAL POSITION
Position yourself at the tail of the (RFM) (low belt) when moving around tail piece	Loss of employment, crushing injuries or death			Make sure belt is off (bridge crew will handle) See schematic
Shut miner down to move past miner	Loss of employment, crushing injuries or death			
Move to the front of the miner when clear of belt tail				
Position yourself in R1 outby crosscut	Loss of employment, crushing injuries or death			Can see in front of you and see bridge runner
Move slowly and allow bridges to catch up	Could cause injury to people and machinery			Caution around tailpiece and corners (High Risk areas for pinch points)
Move miner to R1				
Check with foreman to make sure	Not done you lose time			If the foreman has not made these

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
workplace exam, gas test, and ventilation parameters exam have been done	Build up of gas Bad roof			exams, you are required to make the exam - if in doubt, make exam
Bridge operators will watch the antennas				Antennas are slide markers
Bridge operators will move in coordination with the continuous miner				When slide markers are close to 4' apart, the bridge operator needs to close the gap
Reposition yourself in R2 when mining R2				
Method 1 of tramming to the left				
<ul style="list-style-type: none"> Notify front mobile man that you are moving machine to the left side 				Miner operator needs to continuously communicate with the bridge crew
<ul style="list-style-type: none"> Position yourself beside tail of the RFM (low-belt) inby the bits of the miner 				See schematic
<ul style="list-style-type: none"> Back continuous miner along the RFM until you can turn into the backhole 				
<ul style="list-style-type: none"> Flag front mobile man and jog coal chain once before tramming towards L2 				Jogging the coal chain informs the bridge operator the miner is going to stop and go in the other direction
<ul style="list-style-type: none"> Swing miner into crosscut between belt and L1 				
<ul style="list-style-type: none"> Shut miner down to move past miner 				
<ul style="list-style-type: none"> Crawl past miner into L1 				
<ul style="list-style-type: none"> Position yourself in L1 outby 				
<ul style="list-style-type: none"> Move into L2 inby bits as miner approaches L1 				Be aware of blind spots. You must stay inby the continuous miner to do this.
<ul style="list-style-type: none"> Check with foreman to make sure workplace exam, gas test, and ventilation parameters exam have been 	Not done you lose time Build up of gas Bad roof			

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
done				
Method 2 of tramming to the left				
<ul style="list-style-type: none"> Notify front mobile man that you are moving machine to the left side of the section 				Mine operator needs to continuously communicate with the bridge crew
<ul style="list-style-type: none"> Position yourself beside tail of the RFM (low-belt) inby the bits of the miner 				See schematic
<ul style="list-style-type: none"> Back continuous miner along the RFM until you can turn into the backhole 				
<ul style="list-style-type: none"> Flag front mobile man and jog coal chain once before tramming towards L2 				
<ul style="list-style-type: none"> Swing miner into crosscut between belt and L1 				
<ul style="list-style-type: none"> Shut miner down to move past miner 				
<ul style="list-style-type: none"> Crawl past miner into L1 inby 				
<ul style="list-style-type: none"> Tram past L1 up to L2 				
<ul style="list-style-type: none"> Shut miner down 				
<ul style="list-style-type: none"> Crawl past miner into L2 outby 				
<ul style="list-style-type: none"> Check with foreman to make sure workplace exam, gas test, and ventilation parameters exam have been done 	Not done you lose time Build up of gas Bad roof			
Method 3 of tramming to the left				
<ul style="list-style-type: none"> Notify front mobile man that you are moving machine to the left side 				Miner operator needs to continuously communicate with the bridge crew
<ul style="list-style-type: none"> Position yourself beside tail of the RFM (low-belt) inby the bits of the miner 				See schematic

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
<ul style="list-style-type: none"> Back continuous miner along the RFM until you can turn into the backhole 				
<ul style="list-style-type: none"> Flag front mobile man and jog coal chain once before tramming towards L2 				
<ul style="list-style-type: none"> Swing miner into crosscut between belt and L1 				
<ul style="list-style-type: none"> Continue tramming until you reach crosscut between L1 and L2 				
<ul style="list-style-type: none"> Shut miner down to move past miner 				
<ul style="list-style-type: none"> Crawl past miner into L2 outby 				
<ul style="list-style-type: none"> Check with foreman to make sure workplace exam, gas test, and ventilation parameters exam have been done 	<p>Not done you lose time Build up of gas Bad roof</p>			
Use Method 1 when going to L1				

Duty 7: Cutting Coal

Learner will demonstrate how to safely and efficiently cut coal with the Joy 14CM RC Continuous Mining Machine with attached mobile bridge haulage. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and efficient cutting of coal with the Joy 14CM RC Continuous Mining Machine with attached mobile bridge haulage includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Check work area conditions				Always examine work area and work place for hazards
Position yourself to cut coal				Red zone pattern changes while cutting coal and depending on the entry you are in See diagram on mining sequences Stay out of miner red zones Discuss red zones for the continuous miner and haulage Never allow anyone to be in by your physical position while cutting coal
<ul style="list-style-type: none"> • Take right side cut 				You need to conform to red zone outline
<ul style="list-style-type: none"> <ul style="list-style-type: none"> ○ Standing on the right side of the machine 				You need to conform to the red zone outline Caution: Do not stand directly behind the conveyor of the miner – the conveyor chain can propel rock and coal at grate speed and pressure

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
<ul style="list-style-type: none"> ○ Standing on the left side of the machine 				Noise and dust exposure may be much greater standing on the scrubber side of the machine. You need to conform to the red zone outline Caution: Do not stand directly behind the conveyor of the miner – the conveyor chain can propel rock and coal at grate speed and pressure
<ul style="list-style-type: none"> ● Take left side cut 				You need to conform to the red zone outline
<ul style="list-style-type: none"> ○ Position yourself outby the streamers on the right side of the miner 				You need to conform to the red zone outline
<ul style="list-style-type: none"> ○ Maintain as much distance from miner as possible to avoid pinch points and still be able to maintain width 				You need to conform to the red zone outline
Turn sprays on	Health consideration Methane consideration Motors are cooled with spray water Could cause down time			
Activate scrubber				
Start cutter heads				Be back away from the face
Put in high tram				
Start coal chains				
Pull heads up				
Nick roof				
<ul style="list-style-type: none"> ● Look for white smoke ● Listen for change in sound 				
Sump in for 2-1/2 feet				
Drop heads				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Let them mill around for approximately 5-6 seconds				
Tram miner back until you see the heads fall on the bottom				
Tram straight back in until you hit the face				
Pull heads to the roof, sump in, begin mining				
Advance curtains within 25' of machine				Operator must always be outby the end of the curtain Curtain may only be advanced to the streamers while cutting
Repeat cycle until your reach 40' mark				
Flag front mobile man that you are coming back				
Shut down the following machine functions				
• Cutters				
• Coal chain				
• Scrubber				
• Sprays				Sprays need to remain on for at least 10 seconds after cutter heads are shut down
Back out of cut				
• Take curtain down enough to back miner out				
• Back miner outby streamers				Be aware of pinch points Tips of bits Rear corner of machine
• Hang unsupported roof signs	Prevents people from unintentionally going under unsupported roof			
• Clean scrubber screen				
○ Pull the screen				
○ Tap it clean				
○ Replace screen and close door				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Conduct gas check every 20 minutes	Failure to take gas test could allow methane to accumulate Ignition hazard			Use Gizmo May be able to take complete cut within the 20 minute interval
Hang curtain to the last row of bolts	Failure to hang curtain could cause methane to accumulate			
Signal bridge crew with cap lamp that you are going to move to the left side				Discuss signals for “come ahead”, “come back”, etc. Never cross over or under a bridge until the bridges are on the bottom and shut down.
Position miner to left side				
Repeat cut cycle until left side has been removed				
Cleanup cut				
<ul style="list-style-type: none"> • Make two to three passes • Signal bridge crew each time you move 				
Make gas check for bolters	Roof Bolters would have to make gas check with 40' probe slowing them down			Use gizmo
Pull streamers on the way back out				
Notify bolters of time gas check was taken	Failure to notify the bolters would require them to make another gas check			
Thoroughly wash out scrubber screen before repeating cycle				

Duty 8: Turn crosscut to the Right

Learner will demonstrate how to safely turn right crosscuts with the Joy 14CM RC Continuous Mining Machine with attached mobile bridge haulage (belt to R1 and L2). Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Procedures for safely turning right crosscuts with the Joy 14CM RC Continuous Mining Machine with attached mobile bridge haulage will include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Check work area conditions				Always examine work area and work place for hazards
Ensure workplace exam, gas tests, and dust parameter exam have been conducted	Not done you lose time Build up of gas Bad roof			
Ensure ventilation controls, signage and streamers are in place	Prevents accidental traveling under unsupported roof			
Position yourself on left side of miner				Follow cut sequence diagram Easier to stay on sites See schematic Caution: Do not stand directly behind the conveyor of the miner – the conveyor chain can propel rock and coal at great speed and pressure
Hook the right bull wheel into the start mark				Foreman will measure back 16' from center to get start mark
Slew the rear of miner around as much as possible toward the left rib				
Mine the corner approximately 16'				60 degree crosscut Follow coal cutting procedures
After reaching the 16' mark, back it up out of the corner				
Mine left corner in about 10'				
Back up and reposition the miner to finish the right side cut				
Cut coal until you hit the 40' mark				
Move to left side and repeat cut cycle				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Clean up cut				Make two to three passes
Conduct gas test on left side with Gizmo	Not done you lose time Build up of gas			20 minute intervals and at end of clean up
Clean scrubber according to plan				

Duty 9: Turn Crosscut to the Left

Learner will demonstrate how to safely turn left crosscuts (belt to L1 and R2) with the Joy 14CM RC Continuous Mining Machine with attached mobile bridge haulage. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Procedures for safely turning left crosscuts with the Joy 14CM RC Continuous Mining Machine with attached mobile bridge haulage include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Check work area conditions				Always examine work area and work place for hazards
Ensure workplace exam, gas tests, and dust parameter exam have been conducted	Bad roof Gas Build up Not done you lose time			
Ensure ventilation controls, signage and streamers are in place	Prevents accidental traveling under unsupported roof			
Position yourself on right side of miner (inby) on the site line				Follow cut sequence diagram Do not stand directly in line with the cm conveyor chain - the chain can propel rock or coal with great velocity and force
Hook the left bull wheel into the start mark				Foreman will measure back 16' from center to get start mark

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Slew the rear of miner around as much as possible toward the right rib				
Mine the corner in approximately 16'				60 degree crosscut Follow coal cutting procedures
After reaching 16' mark, back it up out of the corner				
Mine right corner in about 10'				
Slew miner around while taking corner and take right side in 40'				
Cut coal until you hit the 40' mark				
Move to left side and repeat cut cycle				
Clean up				Make two to three passes
Conduct gas test with Gizmo	Not done you lose time Gas build up			20 minute intervals and at end of clean up
Ensure scrubber has been cleaned according to plan				

Duty 10: Belt-up

Learner will demonstrate how to conduct a safe and thorough belt-up procedure using the Joy 14CM RC Continuous Mining Machine. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. A thorough belt-up move includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Check travel way and work area conditions				Always examine work area and work place for hazards
Position miner outby RFM tail				About four feet outby A roll of belt will be spotted
Spot a splice at the tail				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Use vice grips to hook roll of belt onto RFM belt				Outby splice RFM belt will unspool new belt
Turn on RFM belt				
Run 100' back				
Shut belt off and lock out	Could cause serious injury if belt starts unexpectedly			
Tram miner up past the tail				
Place the frame of the miner against the RFM tail				
Push the RFM back to obtain slack belt				
Pull the spindle and hook the belt up				
Attach pull chain to draw bar on miner				
Pull RFM to next location with miner				
Keep RFM on sites				
Hook other end of the belt up				
Install structure				
Pull belt tight with miner				
Energize the RFM belt				
Start the RFM belt	Unexpected movement could cause injury to other workers			Communicate intentions to start belt to other crew members
Check for tracking				
Follow signaling procedures when moving continuous miner or starting the RFM belt				
Clean belt line				
Reinstall belt back check				
Advance CO monitor				
Advance pull cord	You have to be able to shut belt off in case of an emergency			
Advance water line				
Vent belt air to return				
Patch old return hole				

Duty 11: Normal End-of-Shift Activities (Hot-seating)

Learner will explain the importance of communicating and exchanging information as part of “hot seating (1st to 2nd shift) activities. The learner will explain each job step, why they are conducted, any associated risk, and how to implement appropriate controls. Hot seating activities include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Talk to oncoming operator	This discussion can point out potential hazards or road blocks to production on upcoming shift			
<ul style="list-style-type: none"> Discuss problems with remote, shutdown switch, etc. 	This discussion can point out potential hazards or road blocks to production on upcoming shift			
<ul style="list-style-type: none"> Discuss time frame for gas tests, if necessary 				
<ul style="list-style-type: none"> Discuss roof conditions 	This discussion can point out potential hazards or road blocks to production on upcoming shift			
<ul style="list-style-type: none"> Discuss changes in bottom 	This discussion can point out potential hazards or road blocks to production on upcoming shift			Soft, wet and broken up
Check travel way conditions on the way out				Always examine work area and work place for hazards
Drive mantrip out				Put on safety glasses before mantrip moves
Check out				
Put methane detector on charge				
Put light on charge				

Duty 12: End-of-Shift

Learner will demonstrate how to conduct safe and thorough end-of-shift (Saturday) activities. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and thorough end-of-shift (Saturday) activities include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Take only 20-foot cuts the 2 nd half of shift	If 40' is left standing could have build up of gas and could cause roof to sag			
Check travel way and work area conditions				Always examine work area and work place for hazards
Back miner up along RFM				
Shut belt off	Could be a fire hazard Belt being left on could cause problem on start-up next production shift Belts could start unexpectedly			
Check ventilation	Excessive gas build up over the weekend			
Make sure proper danger signs are posted	Everyone is aware of all dangers			
Shut water off at Christmas tree				
De-energize all equipment at power center	Fire hazard Ignition source if left unattended			
Contact outside that your are done loading				
Drive man trip out				Put on safety glasses before mantrip moves
Check out				
Put methane detector on charge				
Put light on charge				

Duty 13: Remote Box Functions

Learner will demonstrate how to safely operate the Joy 14CM RC Continuous Mining Machine remote box in a non-production setting. Learner will also explain the controls, what they operate and how they function. Using the remote box includes the following:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Stay in sight of machine at all times while testing or using the box	Miner can move with remote box functions even though it is out of sight			Give trainee adequate time to learn and practice these controls Have control diagram/drawing or practice box available for use in training
Demonstrate panic bar	Written in Blood			Push or pull will shut the machine down
Demonstrate emergency stop (E-stop)	Back-up Fail safe/ shut down			Kicks power to the load center
Demonstrate installation of battery to remote box				
Start the pump motor				
Leave it in the pump cycle mode				
Demonstrate head function				Up and down
Demonstrate pan function				Up and down
Demonstrate tail function				Up and down
Demonstrate stab jack function				Up and down
Demonstrate fire suppression				Turn it on with remote
Demonstrate how to shut off fire suppression manually after being activated				Turn it off at the miner
Demonstrate function of water sprays				
Demonstrate how to turn head lights off and on				
Demonstrate override of on-board panic buttons				Panic buttons located on each side of machine - explain reasons for use
Demonstrate tram speed switch				Low and high tram
Demonstrate tram levers function				Forward, backward, left and right
Demonstrate coal chain activation				

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Demonstrate activating scrubber				
Demonstrate cutter head start procedure				Trainee should be given a period to practice Power off practice initially

Duty 14: Using the Gizmo

Learner will demonstrate how to correctly operate the Gizmo. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Proper procedures for correctly operating the Gizmo will include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Shut machine down using panic switch on remote	Cutter heads have been known to start accidentally Could cause crushing injuries.			Accidental activation of remote box has caused serious injuries - always shut machine down when working in close proximity
Check work area conditions				Always examine work area and work place for hazards
Place Gizmo no further than 30" outby the tip of the bits on the right side gear case	If it is on any further than 30" may not detect full gas concentration			
Activate methane detector	Won't work if you don't turn it on, could waste time having to tram machine the second time			
Signal bridge crew				
Tram miner to face	You need to get to where the bits hit the solid coal to get a good reading			Deepest penetration Observe Gizmo as your are tramping to ensure that it stays in place

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Touch bits to face	You need to get to where the bits hit the solid coal to get a good reading			
Observe reading	You need to know if there is any gas in the face			
Take a time check	To notify the bolter, if not bolter has to use the 40' probe			
Flag the bridge man and back out				
Tell roof bolter operators time of gas test	To notify the bolter, so the bolter will know when his 20 minutes is up and he has to take another check			

Duty 15: Installing sight lines

Learner will demonstrate how to safely and efficiently install sight lines. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Safe and efficient installation of sight lines includes the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
Check travel way and work area conditions				Always examine work area and work place for hazards
Find laser				You can use other instruments to take sites
Find spads				
Hang laser				
Paint center line from face to 20' outby following laser beam	Being off site can cause extra work Being off site could prevent you from making proper air connections and could affect roof control			Do not look into laser beam

Duty 16: Non-Routine Tasks/Unusual Activities

Learner will discuss, explain and demonstrate when necessary, proper procedures for dealing with non-routine tasks or unusual or emergency situations associated with the operation of the Joy 114CM RC Continuous Mining Machine with attached mobile bridge haulage. Learner will also explain the job duties, why they are conducted, any associated risk, and how to implement appropriate controls. Procedures for dealing with non-routine tasks, unusual or emergency situations include the following job steps:

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Explain fire-fighting duties	Every person assignment is critical in the event of a fire			Assist foreman with ventilation
<ul style="list-style-type: none"> Show location of manual fire valves 	In case there is a fire it is imperative to know where they are at and how to turn them on			One each on left and right sides of miner and one back 40' on bridge
Show escapeways	Everyone is responsible to know their escapeways and evacuation procedures			
Explain/demonstrate methane monitor signals (MMS) and display	In case of methane accumulation it is important to understand what your signals mean			
<ul style="list-style-type: none"> Explain display 				Display shows methane in tenths of a percent Flashes at 1.0% Shuts machine off a 2.0%
<ul style="list-style-type: none"> Explain signals 	In case of methane accumulation it is important to understand what your signals mean			Red signals on each side Shines solid with power on Flashes at 1.0% Kicks power at miner at 2.0%
Explain procedures to follow when methane approaches 1.0%	By following this procedure you can prevent accumulations of methane and continue loading without disrupting the mining cycle			Slow cutting down Back away from face Resume normal cutting when percentage lowers

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/ Notes/Comments
		1=Important 2=Very Important 3=Critical		
Explain procedures to follow when 1.0% methane is detected	By following this procedure you can prevent explosive accumulations Eliminates ignition source when methane is detected			Stop cutting Back machine away from face Make adjustments to ventilation De-energize miner If methane reading remains 1.0% or greater, test for gas with handheld detector
Explain procedures to follow when 2.0% methane is detected	By following this procedure you can prevent explosive accumulations Eliminates ignition source when methane is detected			Machine will shut off automatically
<ul style="list-style-type: none"> Make official methane examination 	By following this procedure you can determine/verify the degree of danger			Use probe and handheld methane detector
<ul style="list-style-type: none"> 2.0% or over is detected 	By following this procedure you can determine/verify the degree of danger and course of action			Report to foreman All personnel except those needed to ventilate the methane should be removed from the area Foreman is required to re-examine all faces for gas
<ul style="list-style-type: none"> Remove power from all equipment 	Eliminates ignition sources			At load center
Explain procedures to follow when machine breaks down inby permanent support	Roof falls are the Number 1 Killer of coal miners			Review applicable portion of the roof control plan
Explain mining procedures to follow when bad roof is encountered	Roof falls are the Number 1 Killer of coal miners Roof conditions are a judgment call, if in doubt discuss with foreman and bolters			No deep cuts Narrow the lift up Cut down loose rock Make roof bolters aware of roof conditions
Using probes				
<ul style="list-style-type: none"> Obtain probe 				Usually on bolter or by phone 20" and 40" probes available
<ul style="list-style-type: none"> Stay under supported roof 	Roof falls are the Number 1 Killer of coal miners Loss of employment			
<ul style="list-style-type: none"> Put legs on end of probe 				40' probe only

Job Steps	Importance Narrative (Consider Safety, Production, Maintenance)	Importance Ranking	Satisfactory or Needs Work	Procedures/Risk Resolution/Notes/Comments
		1=Important 2=Very Important 3=Critical		
<ul style="list-style-type: none"> Extend probe and slide to face 				To deepest penetration You may need to maneuver over the miner
<ul style="list-style-type: none"> Take methane reading 				
<ul style="list-style-type: none"> Retract probe 				
<ul style="list-style-type: none"> Replace probe 				
Procedures for crossing over/under bridges	There have been serious injuries and fatalities when crossing moving conveyor systems/bridges			Never cross over or under a bridge until the bridges are on the bottom and shut down.