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Grosvenor Coal Mine | Trigger Action Response Plan | Title: Longwall Frictional Ignition TARP | Name: GRO-8515-TARP-Longwall Frictional Ignition

Longwall Frictional Ignition TARP

ZONE:	NORMAL	LEVEL 1 TRIGGER	LEVEL 2 TRIGGER	LEVEL 3 TRIGGER
Conditions	1. CH4 gas content less than 5.75 m3/ ton (as stated in the permit to mine) 2. More than 60 m3/s ventilation 3. Gas monitoring in place and operational 4. No stone evident in the cutting horizon except in gate ends 5. Permit to Mine in place	1. CH4 gas content greater than 5.75m3/ton With more than 50 m3/s ventilation 2. Failure of secondary gas monitor 3. More than 0.5m but less than 1.5m of sandstone in the roof or floor cutting horizon for greater than 10 shields	1. CH4 gas content greater than 5.75m3/ton With more than 40 m3/s ventilation 2. More than 1.5m but less than full seam of sandstone in the roof or floor cutting horizon for greater than 10 shields	1. Frictional ignition occurred 2. CH4 gas content greater than 5.75m3/ton With less than 40 m3/s ventilation 3. Full seam of sandstone in the roof or floor cutting horizon for greater than 10 shields
Shearer	1. Shearer picks and sprays are operable and in place 2. Shearer boost pump pressure is sufficient to allow effective dust suppression when cutting 3. Shearer ranging arm water flow is operating as normal. 4. Lump Breaker operation is normal, automation operating as normal.	1. Quantity of picks/sprays in the shearer drum are inoperable: • 5-6 picks or sprays damaged or missing on drum • Up to two consecutive pick blocks missing on any individual vane. • Two adjacent pick blocks missing across any one drum. (i.e.: in a line 90 degrees to face) **OR** 2. Shearer Cutter Drum water flow is <90 l/min (per drum) **OR** 3. Lump Breaker water flow is >50l/min and automation not operating as normal. • < 4 picks damaged or missing on drum • Up to two pick blocks missing or damaged. ***Priority Action- Investigate & Repair within 48 hours*** ***Missing picks and sprays to be replaced during next FI checks.***	1. Quantity of picks/sprays in the shearer drum are inoperable: • 7-8 picks or sprays damaged or missing on drum • Greater than 20 picks changed on either drum during physical inspection • Up to three consecutive pick blocks missing on any individual vane. • Three adjacent pick blocks missing across any one drum in a line (90 degrees to face) **OR** 2. Shearer Cutter Drum water flow is > 70 l/min but <90l/min (per drum) **OR** 3. Lump Breaker water flow is >50l/min but greater than 30l/min and automation not operating as normal. • >4 and <6 picks damaged or missing on drum • Up to three pick blocks missing or damaged ***Priority Action- Investigate & Repair* within 24 hours** ***Missing picks and sprays to be replaced during next FI check, with inspections increased to every 4th shear if greater 20 picks are found missing at any time.***	1. Quantity of picks/sprays in the shearer drum are inoperable: • >8 picks or sprays missing on the drum • >2 adjacent or sequential sprays unserviceable • Four or more consecutive pick blocks missing on any individual vane. • Four or more adjacent pick blocks missing across any one drum. • Six or more single blocks missing on any one drum. **OR** 2. Shearer ranging arm water flow is less than 70 l/min (per arm) **OR** 3. Lump Breaker water flow is <30l/min • >6 picks damaged or missing on drum • Greater than four pick blocks missing or damaged ***Priority Action- Make face safe & Repair immediately***
Tailgate Drive	1. Return race and sprocket flushing sprays operating as designed at #142 & re-router pans. 2. Block side rib line inspected for next 50m and all steel bolts identified and treated as per GRO-7827-SWI-Management of steel rib bolts in the LW block	1. Race Sprays operational 2. Sprocket Sprays in operable ***Priority Action- Investigate & Repair within 48 hours***	1. 1 x race spray inoperable with 2. Sprocket flushing sprays Operational ***Priority Action- Investigate & Repair* within 24 hours**	1. No water is being injected into the race or re routers and or Sprocket flushing sprays are inoperable ***Priority Action- Make face safe & Repair immediately***
PERSON	**NORMAL**	**LEVEL 1 RESPONSE**	**LEVEL 2 RESPONSE**	**LEVEL 3 RESPONSE**
Coal Mine Worker	1. Monitor and maintain area standards 2. Complete FI work order as issued and address any non-compliance as a part of the check. 3. Communicate any changes in conditions to Longwall ERZ Controller 4. Communicate with Longwall ERZ Controller the FI status after each inspection	**As per Normal plus:** 1. Monitor and report issues to supervisor ERZC 2. Where possible fix / repair issue and report to Supervisor / ERZC 3. FI Audit sheet completed 4. Action any defects found on FI check list 5. Take remedial actions to rectify picks and spray non-conformances during drum inspections 6. Lump breaker must be run in manual operation.	**As per Level 1 plus:** 1. Monitor and report issues to supervisor ERZC defects found on FI check list that are not able to be fixed immediately 2. Inform ERZ controller of issue – record action required on work order 3. Slow shearer speed down to suit cutting conditions 4. Increase physical inspections on picks and sprays to every 4 shears. 5. Communicate any changes in conditions to ERZC 6. The shearer operator is to ensure inspections of pick and sprays are conducted to suit mining conditions.	**As per Level 2 plus:** 1. If the Priority action is to ***Make face safe & Repair immediately*** Park shearer in a safe location as soon as practical and cease production 2. Execute action plan as directed 3. Complete incident report on findings if due to equipment damage or collision 4. If cutting full face of sandstone, conduct FI checks every 2 shears. 5. Lump breaker must be isolated and not run.

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			7. Participate in JSA as required	
ERZ Controller	1. Monitor and maintain area standards 2. Ensure that physical inspections on picks and sprays is Conducted. 3. Trigger level recorded every shift in Statutory Report.	**As per Normal plus:** 1. Organise repair with maintenance personnel on shift where possible or report to coordinator to schedule repair. 2. Notify Undermanager. 3. Conduct inspection to ensure that the missing pick blocks do not increase the risk of frictional ignition. 4. Trigger level recorded every shift in Statutory Report. .	**As per Level 1 plus:** 1. Organise repair with maintenance personnel on shift where possible or report to coordinator to schedule repair. 2. Ensure that physical inspections on picks and sprays is Conducted every 4 shears. 3. The ERZ controller and shearer operator are to ensure inspections of pick and sprays are conducted to suit mining conditions. 4. Longwall ERZ Controller has the Authority to Change Condition DOWN if controls effective or UP if not effective 5. If three consecutive pick blocks missing on any individual vane – cease production and conduct JSA to assess risk of frictional ignition and additional controls that will be put in place. (Specific to PTM conditions and ventilation quantities) 6. Any three adjacent pick blocks missing across any one drum (i.e.: in a line 90 to face) – cease production and conduct JSA to assess risk of frictional ignition and additional controls that will be put in place. Contact Undermanager for approval to continue to operate.	**As per Level 2 plus:** 1. Cease production and rectify faults if possible 2. Communicate and monitor compliance with recovery plan 3. Notify Longwall Superintendent 4. Participate in recovery / repair of situation 5. Participate in Incident Investigation 6. Participate in the development of Recovery plan. 7. Ensure that if cutting full face of sandstone, conduct FI checks every 2 shears.
Process Coordinator	1. Monitor and maintain longwall standards 2. Ensure work order compliance FI is complete 3. Review FI work order of outstanding actions	**As per Normal plus:** 1. Organise repair with maintenance personnel on shift where possible or schedule repair on down day,	**As per Level 1 plus:** 1. Organise repair with maintenance personnel on shift where possible or report to coordinator to schedule repair.	**As per Level 2 plus:** 1. Review and action incident reports 2. Ensure equipment is repaired to operational state 3. Assist to Develop and Resource recovery plan as required
Process Superintendent	1. Monitor and maintain Longwall standards 2. Review Statutory Reports & Longwall Production Reports.	**As per Normal plus:** 1. Monitor and approve repair schedule.	**As per Level 1 plus:** 1. Review trends & develop Action Plan. 2. Pass Action Plan to Supervisor / coordinator. 3. Review preparation for Level 3 4. Ensure an Action Plan is implemented. 5. Ensure repairs are conducted as soon as possible to prevent further deterioration of conditions 6. Assist with additional controls where risk assessment determines further controls are required 7. Notify Department Manager and UMM	**As per Level 2 plus:** 1. Allocate resources to repair 2. Approve incident report actions 3. IN the event of a FI incident, lead investigation. 4. Approve funds/resources to ensure equipment is repaired to operational state 5. Develop and Approve recovery plan
Underground Mine Manager	**Normal duties** 1. Sign off on Hazard Management Plans and Permit to Mine.	**As per Normal plus** 1. Review all alarm conditions & validate. 2. Ensure the TARP and associated procedures are complied with.	**As per level 1.** 1. Review Action Plan. 2. Ensure appropriate external resources are utilised. 3. Communicate to general workforce if deemed appropriate	**As per level 2** 1. Has the "Authority to Change Condition Down 2. Complete Statutory Notifications 3. Organise Incident Investigation 4. Consult with the Longwall ERZ controller and Longwall Superintendent to approve the controls to resume production

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