**Significant Risk Assessment – Shovel Move Policy**

<table>
<thead>
<tr>
<th>Potentially Fatal Risk</th>
<th>Critical Controls to Reduce or Eliminate</th>
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</table>
| **Contacting an Energized Power Lines and Other Equipment/Structures** | Pre-move preparation  
Evaluation of power line distances  
Driving route of travel to check for obstacles and clearances  
Lockout Tagout Tryout (LOTOTO)  
Surveying of power line distance from ground to line  
Use of a spotter in areas where power lines, equipment or structures are present  
Use of signage to designate the route  

**Critical Behaviors** – Stopping a move when unsure of power line distance, adhering to ground personnel directions, utilizing proper LOTOTO procedures |
| **Loss of Shovel Power or Brakes Resulting in a “Runaway”** | Place shovel cab and dipper in the uphill direction  
200 foot safety zone to the front and no equipment or people behind the shovel  
Use of a temporary stinger to manage the cable  
Signage to designate shovel move path  
Proper maintenance of braking system and other shovel components  
When motivator is used, it is positioned on the uphill side of the shovel  

**Critical Behaviors** – Remaining outside of the Safety Zone at all times, avoiding loss of brake air pressure by over pumping brakes on equipment utilized for the move |
| **Track Fly Metal** | No personnel or vehicles on side of shovel while in propel  
Temperature measurements on long haul routes to prevent overheating and fly metal potential  
Temperature checks of tracks done while shovel is stopped and dipper is down |

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Critical Behaviors – Refraining from entering area to sides of shovel while in propel; ensuring controls are in place prior to measuring temperature inside safe zone (ie., shovel stopped, dipper down)

<table>
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<tr>
<th>Shovel Fire from Overheating</th>
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<tbody>
<tr>
<td>Walking hydraulic shovels slowly in 800-900 foot increments</td>
</tr>
<tr>
<td>Check shovel temperature to ensure it does not go above 180 F degrees</td>
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<tr>
<td>Use of a water truck as a precaution should overheating occur</td>
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</tbody>
</table>

Critical Behaviors – Take the shovel slow during move, ensure temperatures are checked every 800-900 feet during move

Red Flags – Indicate potential unsafe behavior or lack of controls

- Unauthorized personnel anywhere within the established Safety Zone
- No pre-move preparation or review
- No Signage regarding “Shovel Move in Process” is in place or visible
- No designated Safety Watch
- Motivator improperly placed
- No designated radio channel for the move.
- No presence of a mine supervisor or shovel mechanics during the move
- Dipper positions during the move are improperly placed
- No water truck present during hydraulic move
- No temperature monitoring during hydraulic move
- Dozers or other equipment positioned within “line of fire” with tracks or counterweight
- Stinger not being used to manage the cable when moving a shovel with the motivator
- No use of LOTOTO where overhead power lines are within minimum clearing distances
- No use of the FCX Energy Control Policies when moving around power lines
- Employees on sides of shovel while it is in motion (propel)

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