

## MOSH Industry Dust Bowtie Analysis

### Coal – Respirable Coal Dust (Surface)

#### Short Version of Threats and Controls

<b>Hazard name:</b>	Respirable Coal Dust (Surface)
<b>Top event:</b>	Liberation of Respirable Coal Dust
<b>Affects:</b>	Health
<b>Description:</b>	Coal dust generated by various mining activities

### Threats

Coal Transfer (Underground to surface silos)	
<b>Controls</b>	<ul style="list-style-type: none"> <li>Transfer Point Water Sprays</li> <li>CBAT-SLP</li> </ul>
Drilling-Coal (Surface)	
<b>Controls</b>	<ul style="list-style-type: none"> <li>Suction Drilling/Dust collectors</li> <li>Drilling Scrubber</li> <li>Wet Drilling</li> <li>Dust Curtain (C/Belt dust deflector)</li> </ul>
Blasting - Coal (Surface)	
<b>Controls</b>	<ul style="list-style-type: none"> <li>Explosive Selection</li> <li>Waterblast Canon</li> <li>Burden &amp; Spacing, patterns, stemming</li> </ul>

Loading (Surface)	
<b>Controls</b>	<ul style="list-style-type: none"> <li>• WaterBlast Canon</li> </ul>
Hauling (Roadways - Surface)	
<b>Controls</b>	<ul style="list-style-type: none"> <li>• Roadway Dust Supression (Watering down)</li> <li>• Environmental Roadway Construction</li> </ul>
Tipping/Dumping (Surface)	
<b>Controls</b>	<ul style="list-style-type: none"> <li>• Waterblast Canon</li> <li>• Tips Sprays</li> </ul>
Coal Conveyance (Surface Belt)	
<b>Controls</b>	<ul style="list-style-type: none"> <li>• Water Sprays</li> <li>• CBAT-SLP</li> </ul>
Coal Processing (Surface Plant)	
<b>Controls</b>	<ul style="list-style-type: none"> <li>• Water Sprays</li> <li>• CBAT-SLP</li> <li>• Water Sprays</li> </ul>

## Consequences

Dust Inhalation - Acute Exposure	
<b>Controls</b>	<ul style="list-style-type: none"> <li>• Travelling Speed Management</li> <li>• Cabin Integrity</li> <li>• Windsock Indicator</li> <li>• Operator/passenger enclosed cabins</li> <li>• Canopy Air Curtain Technology/Practice</li> <li>• Job Rotation</li> <li>• Dust Mask (PPE)</li> <li>• Respirators (PPE)</li> <li>• Real Time Dust Monitoring</li> <li>• Ventilation Control Systems</li> </ul>
Dust Inhalation -Chronic Exposure	
<b>Controls</b>	<ul style="list-style-type: none"> <li>• Travelling Speed Management</li> <li>• Cabin Integrity</li> <li>• Windsock Indicator</li> <li>• Operator/passenger enclosed cabins</li> <li>• Canopy Air Curtain Technology/Practice</li> <li>• Job Rotation</li> <li>• Personal Dust Monitoring</li> <li>• Periodic Medical Screening</li> <li>• Job Re-Classification</li> <li>• Canopy Air Curtain Technology/Practice</li> <li>• Ventilation Control Systems</li> <li>• Real Time Dust Monitoring</li> </ul>
Business Continuity Disruptions	
<b>Controls</b>	<ul style="list-style-type: none"> <li>• Occupational Health Monitoring Programme</li> <li>• Business Continuity Training</li> </ul>

## Stakeholder Relations

### Controls

- Stakeholder Management Plan