



SMA SAFETY SUMMIT 2018

**Bethune Mine
Tailings Pile Dozer Incident**

**March 1, 2018
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AGENDA

- Introduction to the Incident
- Sequence of Events leading up to incident
- Key Findings
- Closing



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INTRODUCTION

A very wise man once told us:

“ In your lifetime, you **WILL** sink a dozer in the Tailings Management Area”

The response:

We have highly experienced people, who know the hazards, have worked in tailings, and have had the unfortunate experience of sinking dozers before. It shouldn't happen.

WHAT COULD POSSIBLY GO WRONG?



Tailings Pile Dozer Incident

- Occurred in the early stages of salt deposition in TMA
- Low % solids in slurry discharge
- KSPC hired contractor to assist pile management during start up efforts

Tailings Pile Dozer Incident – Before



Dozer ready for action
May 2017

Tailings Pile Dozer Incident - Task Being Performed



Moving tailings to build elevated platform for discharge line



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Tailings Pile Dozer Incident – The Result – Oct 2017



Operator came too close to discharge point.

Weight of salt load and dozer blade exceeded limits of salt edge and pulled dozer down.

Operator tried to self correct but failed to do so and was pulled into hole. Evacuated immediately.



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Tailings Pile Dozer Incident – The Result – Oct 2017



Dozer prior to recovery efforts

Significant repair costs and dozer out of service for 6 weeks.



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Sequence of Events

- KSPC hired contractor operator to assist pile management during start up efforts
- Contractor and KSPC reviewed Scope of Work
- Reviewed SOW with operator and completed a JSA
- Operator competency check on “dozer operation” completed
- Operator started working salt to relocate slurry piping – Within 2 hours incident occurred



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Key Findings

- **Operator Competency in Tailings Environment**
 - Assumed operator experience aligned with SOW and contractor quote - on paper exceeded expectations – did not align
 - Dozer operation competency was confirmed in field – salt tailings different from any previous work operator completed.
- **Operator did not fully understand the hazard**
 - Pour point hole - Hazard was discussed but not identified on JSA including safe operating distance
- **More rigorous vetting of contractor experience**





CLOSING

- ✓ IDENTIFY THE HAZARD
 - ✓ KNOW THE HAZARD
 - ✓ UNDERSTAND THE HAZARD!!!

VERIFY VERIFY VERIFY

- Don't rush! Spend the time to field verify contract work prior to start of work, as you would your own employees
- Ensure Scope of Work clearly identifies experience requirements



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Questions?

