JOE AND PAULA FREDRICKSON

OUR STORY
The Day Of The Incident

- Picked up an extra shift.
- Left for work and said goodbye to my wife.
The Day Of The Incident

- Go to work at Tac Harbor…
The Day Of The Incident

✓ Following procedures
✓ Wearing PPE
✓ Doing everything right

Everything went so very wrong!
CO Level

10/19/12 at 9:05AM – 10/22/12 at 9:05AM

- Hi Alarm 30 ppm
- Hi Hi Alarm 150 ppm
- DCS generated alarms

"System in alarm" flashing text on Dust collector / CO monitor screen at 10 ppm

Low Absolute Alarm (DCS) for any readings below zero (-1)

(Indication of hot spot)

(CO levels prior to explosion)

- Dust Collector CO in Bunker Room
Unit #2 Section D Bunker Filling Prior to Explosion
(1.5 tons of coal being dropped into 2D bunker)

Joe Fredrickson above bunker 2 Section D, operating Tripper Car

Coal dust concentration reaching minimum explosion concentration

Tripper room floor is not depicted in drawing. The floor is located directly above bunkers 1, 2, 3)

Unidentified source of ignition was located in bunker #2 Section D and Section C

Source: Howie Eberts, OSHA Area Director
Coal dust reaches minimum explosion concentration and ignites when it comes in contact with a hotspot. The hotspot is located in lower end of bunker between Sections D and C of bunker #2. An explosion occurs as a result of the bunker’s confinement.
Elastic Rebound Shock Wave
The secondary explosion resulted from the airborne dust in tripper room achieving minimum explosion concentration and ignition source resulting from the primary explosion.
The secondary explosion causes damage to tripper room floor walls and ceiling.
Bob Wolke, D10 dozer operator sees mushroom fireball at 9:10 coming from tripper room roof.

The fire activated 20 of 22 sprinkler heads to allow discharged water to extinguish the tripper room material that was on fire. The coal conveying and feed system was automatically shut down when extinguishing system was activated.
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The Day Of the Incident
5 HOURS LATER...
The Day Of the Incident
The Day Of the Incident
11 Days
Learning Organization

Even when you do things the right way, things can still go wrong!
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THANK YOU FOR LISTENING!

Sincerely,

JOE AND PAULA