



What Would Good Have Looked Like? Tank Fire from Vapours in Slurried Tank

ExxonMobil

What Happened?

- During removal of a slurry filled tank, a small fire occurred as the excavator cutting equipment made a hole in the tank.
- In making the hole larger to pump out the liquid on top of the slurry inside the tank, a spark/or heat from metal on metal caused the vapours from the tank to ignite .
- Conducted LEL testing around the tank pit, but not at the tank opening or within.



Tank after opening up after the fire

What's the Worst Thing That Could Happen?

An explosion could occur, with the potential for loss of life!

What could have been done differently ?

1) Better Work Planning

- ✓ Procedures & JSAs need to reflect the potential for voids containing flammable vapour in all slurried tanks
- ✓ Confirm **Supervisor Qualifications/Experience**

2) Don't assume slurry tanks are Free of Vapours

- ✓ Establish how to reduce elevated LEL levels within the tank – plan for **inerting the voids** with Dry ice, nitrogen or foam, or flush with water until the LEL exposure is removed

3) LEL monitoring INSIDE the tank!

- ✓ Use extension wands or flexible tubing to measure LEL and Oxygen levels inside the tank at all of the tank openings

Assess, Analyze, ActSTOP work when free liquids are found!



Remove at least one element to prevent fire/explosion!



LEL with extension tube

— **Environmental Services**

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