Experience writing the

Energy Institute Guide

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BIOMASS FOR POWER GENERATION

SHARED EXPERIENCE

* Industry pressed to share experience on safety issues by HSE

* Energy Institute asked to produce a guide

* They in turn tendered the work and gave it to Haztech

* Almost all the text came from me, but got shuffled in the editorial process

A LITTLE LATE IN THE DAY?

- Most of the big sites had made their plans
- Rather too late to influence designs
- Finally published March 2016
- But as an exercise in putting together what we do know, and what we don't it seemed useful
- A snip to you, just £140 for the pdf version

FLAT FLOOR STORAGE V SILOS

- Superficially Flat floor does not comply with DSEAR, does HSE have a view?

- Flat floor has people working close to stock, obvious hazards

- Flat floor allows complete stock rotation

- Flat floor allows easier cleaning

SILO STORAGE

* How can we specify worst case for silo explosion modelling.

* Can we measure how much dust clings to the walls?

* Do we have a plan for dealing with a silo showing early stages of smouldering?

INERTING WITH NITROGEN

* What are we trying to achieve?
* Suppress surface flaming
* Suppress possible dust explosion
* Provide cooling to deep seated fire
* Stop on-going smouldering combustion
* Each of these objectives provides different requirements

EMERGENCY SHUT DOWN

* Not simple to shut down a series of linked conveyors

* Fire may be static or in the moving mass

* Only design basis for water spray protection is an NFPA standard, not much experience using this

MEANS OF ESCAPE

* Might seem trivial, low occupancy
* Very long inclined conveyors
* Long enclosed galleries feels like a mine roadway
* Need to know where the fire is when deciding direction of escape
* How fast can you walk uphill?

RECENTLY BUILT PLANT

* Constructed in a hurry

* Many questions left unanswered

* Collaborative research would be needed to resolve some of the issues

* EI Guide difficult to complete, as process for agreeing final draft was unclear