
Question 2: What are your Best Practices concerning the potential for flash fires in dust collectors and vent drums in a reformer's continuous catalyst regenerator when performing maintenance?

DUNHAM (UOP LLC, A Honeywell Company)

Our main concern here is iron sulfide, which is pyrophoric; meaning that if it is exposed to air, it will self-ignite. There is also hydrocarbon present, so you can get a sustained fire if these lights are off. So, the main safeguard here is that when you open up these vessels for turnaround, you must keep them in an inert environment, usually nitrogen. You can have this iron sulfide present in several areas, such as the vent drum or dust collector, and it can be entrained in the dust collector bags. Keeping the vessels under an inert condition will prevent flash fire. You can also keep these materials wet so they do not dry out and ignite. Because of this concern, you need to have fire extinguishers present when you open this equipment, as well as people trained to use the fire extinguishers. Another concern is that these iron sulfides can ignite and can be lit up from a static charge, so all of your handling equipment – if you are dealing with this material – should be grounded.

FRY (Delek Refining Ltd)

I will simply confirm that dust ignition from static discharge is a very real possibility. Some of our former operators have had that experience. So, I will simply add that you definitely want to keep your bin and your barrel grounded when dumping into it.

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