It’s a FCC -
What Could Go Wrong?
What Could Go Right?

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REFCOMM® Galveston 2019
Training April 29–30, Conference and Exhibition May 1–3
What is the Biggest Problem Area in your FCC?

- 1) Catalyst issues

- 2) Regenerator/Power Recovery Train Issues

- 3) Gas Plant Issues

- 4) Amount & Quality of Products or Feed Quality

- 5) Something else
Who am I? Richard Quinnette

- Refinery Process Engineer for Sunoco, Inc. in Marcus Hook & Phila!
- BS Chemical Engineering & MBA from Drexel
- Also Process Engineer for HollyFrontier - Tulsa
- Also worked in Business Planning and Environmental on Consent Decrees
- Also worked in Upstream, Mid-Stream & Petrochem.
- Lives in Broken Arrow, OK
- Volunteered to be a Facilitator
Expanded Categories of Problem Areas

• 1) Catalyst Circulation/ Catalyst Loss /Flow Reversal
• 2) Coking/Fouling
• 3) High Regeneration temperature
• 4) Afterburn/ Hot Gas Expander
• 5) Hydrogen Blistering in the Gas Plant
• 6) Amount and Quality of Products or Quality of Feed
• 7) Something else

Taken from Reza Sadeghbeigi's book "Fluid Catalytic Cracking Handbook"
Two Examples of What went Wrong

• Yellow Cloud over South Phila.
  – Stuck slide valve
  – Phone call “That was Pretty”

• Coke found in Main Frac Line on TA at Refinery that was not mine
  – Reported through channels
  – Not sure it was reported to owner
Eagle Point Video?

http://www.youtube.com/watch?v=bMLLLFc56JI
What can Go Right?