Here’s What Happened:

By design, plastic beads fall by gravity through this sieve. The beads contain trace amounts of pentane, a flammable, volatile material which is liberated during processing. The sieve was designed with an air sweep to keep the pentane fume concentration below the flammable limit. One evening, when everything appeared to be operating as it should, the operators heard a loud BANG! They quickly investigated and saw flames coming out of the sieve. Quick action by the fire brigade controlled the fire and no one was injured, but the plant was down for repairs.

What Can You Do to Prevent Similar Problems?

- Regularly check ALL safeguards to be sure that they are still in place and working properly. This includes interlocks—are they there, are they working? Remember, air purges can be safeguards too.
- Be aware that static electricity may be anywhere. Good design and well maintained systems control it.
- Some equipment has grounding cables. If they are damaged, replace them quickly to remove the “spark” potential.
- Make sure that all three components of the fire triangle do not exist at one time and in one place.

Critical Safety Devices come in many forms. Know them and use them!