# COMBUSTIBLE DUST FLOWCHART

FAUSKE & ASSOCIATES, LLC
WORLD LEADER IN NUCLEAR AND CHEMICAL PROCESS SAFETY

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## IS MY DUST COMBUSTIBLE?

**STEP 1:** Perform a screening test (such as a Go/No-Go or VDI for layer ignition)

**If Test is a "NO-GO"**

**You do not have a combustible dust.**
**However**, you may need to consider other hazards (i.e., fire, UN transport concerns, etc.)

**If Test is a "GO"**

## STEP 2: QUESTIONS

- Is my **Equipment** appropriately protected?
- **Identify** hazards and compliance issues based on NFPA and other relevant regulations? (IBC, NEC, etc.)
- Do I need a **Process Hazard Analysis (PHA)?** *A PHA is required per NFPA 654, 484, & 664*
- **Is there a system in place** for managing the identified hazards?

## STEP 3: RATIONALE

- **Obtain** test data from a lab for vendors to appropriately design explosion protection/mitigation.
- **Compare** current practices against the prescriptive approach outlined in NFPA standards.
- **Identify** if normal or upset conditions could lead to a flash fire or dust explosion.
- **Evaluate** training, housekeeping, management of change and current practices against industry standards and Recognized And Generally Accepted Good Engineering Practices **(RAGAGEP)**

## STEP 4: ACTION

- **Test** for Explosion Severity ($K_{St}$ and $P_{max}$). ***(Collect Relevant Data)***
- **Test** for Minimum Ignition Energy (MIE) and Minimum Explosible Concentration (MEC). Also consider Volume Resistivity and Powder Chargeability for systems where static could be present. ***(Collect Relevant Data)***
- **Perform** an onsite assessment to review your facility to relevant regulations. ***(Conduct a Walkthrough)***
- **Conduct** a PHA to identify areas of highest risk, prioritize mitigation and control efforts, and adjust resources.
- **Implement** a system to ensure that all hazard and upset conditions have been considered and mitigated to achieve a tolerable risk level.

**THIS CHART IS A GUIDE ONLY**
It is not a comprehensive plan for dust management and is not a replacement for professional counsel. Please contact our experts at (630) 887-5300 with questions.