
Curriculum Vitae for Jack E. Osborn

General Background:

Design and Project Engineer with forty-one(41) years of experience in the feasibility, design, project management, installation, start-up, and operations/maintenance training of personnel for an extensive range of mechanical equipment systems. Projects range in size from “small” (thousands) to “large” (multi-millions). Involvement typically ranges from initial system feasibility, design and layout through start-up and training.

The scope of experience includes projects and services for:

1. Air pollution control and monitoring systems (wide variety).
2. Centralized vacuum cleaning systems.
3. Pneumatic conveying systems.
4. Plant ventilation systems.
5. Heat exchangers, drying operations (wide variety), and mixing operations.
6. Mechanical conveying systems (full range).
7. Waste handling and processing systems.
8. Alternative fuel systems.
9. Hazardous material handling and storage systems (combustible dusts and explosives).
10. Explosion and hazardous material “safety” audits (evaluates risks involved with the bulk handling, dust collection, processing, etc., of hazardous dusts, vapors, mists, and/or gases).
11. DHA (Dust Hazards Analysis) and PHA requirements.

The services provided included:

1. Feasibility Studies, Audits, or Preliminary Engineering and Design.
2. System design, drawings and specifications.
3. Project management (from bidding process through installation).
4. Development of DHA’s and PHA’s.
5. Development of system Operations & Maintenance manuals.
6. Training of personnel in the operation and maintenance of the provided systems.
7. Trouble-shooting existing systems.
8. Preventive maintenance program development.

Educational History:

1. B.S. in Education, James Madison University – 1971.
2. M.S. in Education, James Madison University – 1973.
3. B.S. in Mechanical Engineering, University of Tulsa – 1979.

Professional Certification:

1. P. E. #13005 – Oklahoma.
2. P. E. #00105187 – Tennessee.
3. P. E. #5571 – Arkansas.

Professional Development and Training:

1. P. E. Certification requires continual professional development.
2. Training includes:
 - a. Hazardous/Classified Locations evaluation.
 - b. Electrical Installation in Hazardous Locations.
3. Multiple project planning and management courses and seminars.
4. Member of the following National Fire Protection Association (NFPA) Committees:
 - a. **NFPA 654** – Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids.
 - (1) **NFPA 91** – Standard for Exhaust Systems for Air Conveying of Vapors, Gases, Mists, and Particulate Solids.
 - (2) **NFPA 655** – Standard for Prevention of Sulfur Fires and Explosions.
 - b. **NFPA 664** – Standard for Prevention of Fires and Explosions in Wood Processing and Woodworking Facilities.
 - c. **NFPA 61** – Standard for Prevention of Fires and Dust Explosions in Agricultural and Food Processing Facilities.
 - d. **NFPA 652** – Standard on the Fundamentals of Combustible Dusts.
 - e. **NFPA Correlating Committee.**

Published Articles (all in *Powder & Bulk Engineering*):

1. *An Easy, Low-Cost Way to Monitor and Maintain Your Dust Collection System*(October, 1997, Tips Article).
2. *The Three-Gauge Approach to Simpler, Lower-Cost Dust Collection System Monitoring and Maintenance*(March, 2012).
3. *Information to Demand in Your System Operations and Maintenance Manual* (September, 1998).
4. *Total System Approach: Solving a Multi-Ingredient Weigh Batching Problem* (Dual month article – September and October, 1999).
5. *Get Ready for NFPA 652: The New Combustible Dust Standard* (October, 2014).
6. *The New NFPA 652 Standard Brings Big Changes for Those Handling Combustible Dusts* (Column in latter 2015).
7. Multiple “Ask-the-Expert” articles for Internet Website (Articles that answer questions sent to PBE and each question represents an article written for PBE. No month is given as these are used by PBE when they need them):
 - a. Question: How do you select a bin vent for a silo? (2012).
 - b. Question (Paraphrased): Where do I get answers on how to solve combustible dust problems for our facility? (2014).
 - c. Question (Paraphrased): What is going on when I get a surge of material out of my dust collector? (2014).
 - d. Question (Paraphrased): How do you get difficult material out of a dust collector(2015).
 - e. Question (Paraphrased): How do you get a “representative sample” for explosivity testing? (2015).
 - f. Question (Paraphrased): What is the best minimum duct velocity for my dust collection system? (2015).
 - g. Question: What are the critical factors in designing a successful dust collection hood? (2015).
 - h. Question (Paraphrased): What are the important criteria necessary to assure we purchase the best (centralized vacuum cleaning system) for our facility? (2016).
 - i. Question (Paraphrased): What is a DHA and what does it mean for my facility? (2016).

Teaching Seminars for *Powder & Bulk Engineering* (multiple times over the last 4 years):

1. Best design methods for dust collection system.
2. Best design methods for centralized vacuum cleaning systems.
3. Combustible dust compliance issues.

Seminar for International Powder Show (Chicago) – 2016: Best Practices for a Successful Dust Collection System.