Minnesota Dual-Training Pipeline
Competency Model for Advanced Manufacturing
Occupation: Safety Technician

Employer-Specific Requirements

Occupation-Specific Competencies*
- Inspect, test, evaluate:
  - work environment
  - machinery and equipment
  - safety programs
- Repair safety equipment
- Perform Industrial Hygiene Activities
- Educate about work safety
- Maintain safety management system
- Teach safe equipment use
- Investigate and rectify workplace accidents

Industry-Sector Technical Competencies*
- Documentation
  - Relevant Equipment and Machinery Proficiency
- Management Principles
  - Hazardous-Chemical Proficiency
- Training/Adult Learning
  - Physical Safety and Ergonomics Best Practices
- Health Practices

Industry-Wide Technical Competencies
- Manuf. Process Design & Development
- Production
- Physical Stamina
- Quality Assurance, Continuous Improvement
- Data Analysis and Reporting
- Safety, Health Security and Environment
- Root Cause Analysis

Workplace Competencies
- Business Basics
- Teamwork
- Adaptable and Flexibility
- Customer Service Focus
- Planning and Organizing
- Problem Solving, Decision Making
- Working With Tools, Technology
- Checking, Examining and Recording
- Sustainable Practices

Academic Competencies
- Science
- Basic Computer Skills
- Basic and Technical Mathematics
- Reading and Writing
- Communication: Listening & Speaking
- Critical & Analytic Thinking
- Information Literacy

Personal Effectiveness Competencies
- Interpersonal Skills
- Integrity
- Professionalism
- Initiative
- Dependability and Reliability
- Lifelong Learning


*Pipeline recommends the Industry-Sector Technical Competencies as formal training opportunities (provided through related instruction) and the Occupation-Specific Competencies as on-the-job training opportunities.
Competency Model for Safety Technician

Safety Technician – A safety technician is responsible for performing activities in the fields of industrial hygiene, occupational health and environmental health to ensure safe and healthy working conditions are maintained and that the environment is not adversely affected by daily work operations.

Industry-Sector Technical Competencies

Related instruction for dual training means the organized and systematic form of education resulting in the enhancement of skills and competencies related to the dual trainee’s current or intended occupation.

- **Documentation** – Rules, regulations, and best practices that dictate how and when to document timelines and events.

- **Management principles** – Guidelines for the decisions and actions of organization leaders and managers

- **Training/adult learning** – Understand how to effectively train and present material to adult learners.

- **Health practices** – Be able to review, evaluate, and analyze work environments and design programs and procedures to control, eliminate, and prevent disease or injury caused by chemical, physical, and biological agents or ergonomic factors.

- **Relevant equipment and machinery proficiency** – Each organization will present a different composition of equipment or machinery in which the safety technician will need to be proficient, but this is a vital component to the job for any safety technician

- **Hazardous chemical proficiency** – Deep functional knowledge and understanding of chemicals that may be hazardous on the job and how to handle them.

- **Physical safety and ergonomics best practices** – Understanding of practices to handling ergonomic needs and approaches to physically and mentally safe work environments
Occupation-Specific Competencies

On-the-Job Training (OJT) is hands-on instruction completed at work to learn the core competencies necessary to succeed in an occupation. Common types of OJT include job shadowing, mentorship, cohort-based training, assignment-based project evaluation and discussion-based training.

- **Work environment inspection, testing, and evaluation** – Demonstrate the ability to inspect, test, and evaluate work environments.

- **Machinery and equipment inspection, testing, and evaluation** – Demonstrate the ability to inspect, test, and evaluate machinery for efficient and safe operations.

- **Safety program inspection, testing, and evaluation** – Demonstrate the ability to inspect, test, and evaluate safety programs in one or more relevant locations.

- **Perform industrial hygiene activities** – Demonstrate understanding of various environmental indicators, such as decibel readings and air quality.

- **Educate about work safety** – Demonstrate the ability to effectively communicate organization needs and approaches to safe workplace practices for team members.

- **Maintain safety management system** – Demonstrate the ability to design and maintain a safety management system with the organization.

- **Teach safe equipment use** – Demonstrate the ability to coordinate training to ensure safety of tools and equipment used by team members on the job.

- **Repair safety equipment** – Demonstrate proficiency with equipment used to ensure safety on the job.

- **Investigate and rectify workplace accidents** – Understand how to conduct investigations when accidents occur to determine cause and how to adjust / enhance training to avoid future accidents.

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