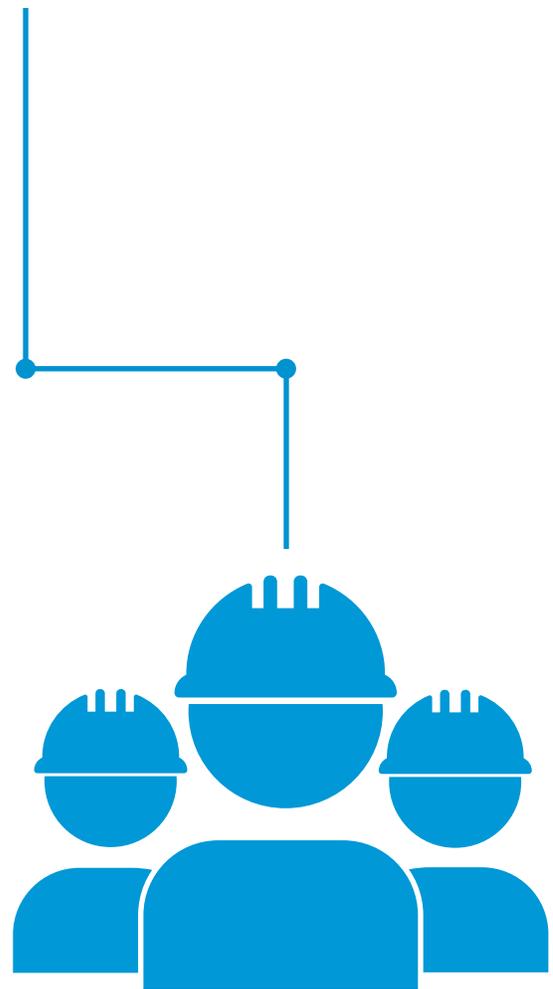


Technical

Training

Development

**TPC Consulting Services**



TPC Consulting provides a full range of consulting, design, development, and implementation services specifically focused on assisting our clients in meeting their workforce performance improvement and productivity goals.

Our professional staff includes a full complement of experienced Training Consultants, Instructional Designers and Developers, Instructors, Technical Writers and Editors, Technical Specialists, Graphic Artists, Programmers, Web Designers, Desktop Publishers and more—all specializing in industrial training and development applications.

### Performance and Training Consulting

- Program Audits
- Work Process and Procedure Needs Analysis
- Job Task Analysis
- Training Needs Assessments
- Incumbent Gap Analysis (Knowledge and/or Skills)
- Training and Qualification Program Design and Development
- Evaluation and Feedback for Instrument Design and Development
- Documentation Services
- Operations and Maintenance Manual Development
- Electronic Formats and Document Control
- Operations, Maintenance, Safety, and Administrative Procedure Development
- On-Site Classroom Instruction (visit the TPC Training Systems website for additional information)
  - Training Skills Workshop
  - Instructional Systems Design (ISD) Workshop
  - Job Task Analysis and Training Design Workshop
  - Procedure Writing Workshop
  - Test Construction Workshop
  - Classroom Presentation Skills Workshop
  - Custom Development

### Compliance Program Development

- Process Safety Management (OSHA 1910.119)
- Mechanical Integrity
- EPA Risk Management
- DOT 192 and 195 Pipeline Operator Qualification Compliance
- CMA Responsible Care
- FDA Good Manufacturing Practices
- HACCP

See our website  
[www.tpctraining.com](http://www.tpctraining.com)  
for workshop pricing  
information.



### TPC's Approach to Designing and Developing Industrial Training Programs

TPC programs present trainees with the fundamental knowledge they need to safely and effectively perform job tasks. With our programs, trainees learn industry-accepted terminology, theories, techniques, and tool usage. These programs support and expedite process-specific and area-specific training as well as on-the-job training (OJT).



#### Fundamentals Training

- Terminology
- Theories
- Tools
- Techniques

#### Knowledge

- Training Needs Analysis
- Job and Task Analysis
- Knowledge Assessments
- Performance Assessments
- TPC Training Materials

#### Process/Area-Specific Training

Developed for area, skill, or shift

#### Knowledge and Performance

- Job and Task Analysis
- Knowledge Assessments
- Performance Assessments
- Custom Developed Training Materials
- Vendor Training Materials

#### Job-Specific Training

On-the-Job (Mentored Training)

#### Knowledge and Performance

- Job and Task Analysis
- Procedures
- Manuals and Job Aids
- Objective Performance Assessments

By using a performance-based training approach, we create a comprehensive, cost-effective program designed to meet your unique learning and performance objectives. Your personnel are not only trained on the specifics of their jobs, but they also learn how their work significantly impacts other process parameters and dynamics in the facility. We do this by creating programs that progress from fundamentals training common to your entire workforce to job-specific processes and topics.

Based on a classic Instructional Systems Design (ISD) methodology, our training model uses a field-proven approach to designing, developing, and delivering performance-based training materials. We continually refine this process to optimize cost effectiveness, enhance the degree of detail obtained in the analysis and design phases, and ensure that clients receive comprehensive job-relevant training. This model keeps personnel engaged and ensures they understand each step in the development process, ultimately increasing the facility-wide adoption of the training program.

Our methodology is based on the ADDIE Model—Analyze, Design, Develop, Implement, Evaluate.



### Analyze

We begin by identifying specific job tasks, performance requirements, and precise knowledge, competencies, and skill requirements. This identification ensures that all job-related skill and knowledge requirements are met, and that all training is job-relevant. We then evaluate the incumbent workforce to determine potential knowledge and performance gaps.

Analyzing the work environment enables us to:

- Identify relevant knowledge and skills needed in each work area
- Identify knowledge and performance requirements for each job level
- Determine applicable training materials to support fundamental training
- Assess current worker knowledge and skills in order to assign applicable training that closes identified gaps

### Design

After identifying your current requirements, we then determine the content and sequence of learning events for your workforce. This will include the best delivery method for your workers: computer-based training (CBT), training manuals, classroom, or on-the-job training programs. Based on client-defined knowledge and performance requirements, we design applicable training curricula for each job function or level.

### Develop

Using the design as a road map, our specialists begin developing training content. Training content can include learning objectives, procedures, student manuals, instructor materials, classroom presentation materials, on-the-job training (OJT) checklists, performance exercises, examinations, and job aids.

### Implement

After your training materials are developed, we can help you implement your new program. For group learning, we have instructors with over 20 years of experience in industry ready to go on-site and train your crew. If crew members will be leading the training, we can prepare them for teaching others with our train-the-trainer workshops. In addition, we can develop infrastructure for enrollment, record keeping, and courseware maintenance.

### Evaluate

Evaluation is critical for maintaining accurate and effective training and technical documentation. We provide evaluation instruments and program maintenance assistance to ensure the continuing quality of your training programs and materials.

For planning and cost estimating purposes, each phase of the proposed project is treated as an independent element. For each phase, we describe our approach and methodology, expected deliverables, client requirements, TPC staffing, and phase costs.

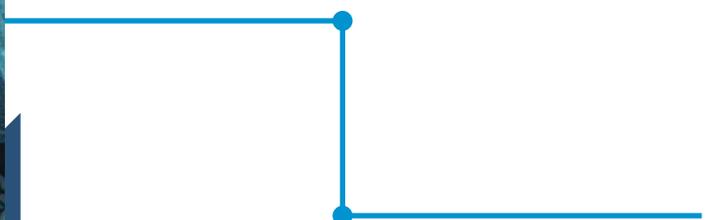
The tasks listed here are typical approaches used by TPC to identify applicable training topics and determine group or individual training needs.

Task	Outcome/Deliverable
<p>Conduct Training Needs Analysis (TNA)</p> <ul style="list-style-type: none"><li>• Complete online TNA for each job</li><li>• TPC analyzes TNA results</li></ul>	<p>We produce a TNA Report listing relevant and applicable TPC Training courses for each maintenance job or class of job that completed the survey.</p>
<p>Assess Fundamental Maintenance Knowledge and/or Skills of the Workforce</p>	<p>From this assessment, multiple choice tests with answer keys based on selected TPC training topics are developed.</p> <p>If used, the pre-assessments help determine individual training needs and prioritize the selection of training topics.</p> <p>Each TPC course includes individual pre-tests which allow the trainee to “challenge” the training material.</p>
<p>Perform Job and Task Analysis</p> <ul style="list-style-type: none"><li>• Interview incumbents and supervisory personnel</li><li>• Review applicable documents (procedures, OJT, etc.)</li><li>• Can be performed in parallel with TNA survey or independently</li></ul>	<p>Task lists are developed based on job, area, and system. These lists include:</p> <ul style="list-style-type: none"><li>• Components, systems, equipment that trainees are responsible for operating or maintaining</li><li>• Tasks, skills, competencies common to all areas or jobs</li><li>• Tasks, skills, competencies shared by two or more areas or jobs</li><li>• Unique job-specific or system-specific tasks, skills, competencies</li></ul> <p>We then compare tasks and responsibilities to existing OJT and procedures in order to identify gaps or omissions.</p> <p>A potential list of training topics is then created.</p>



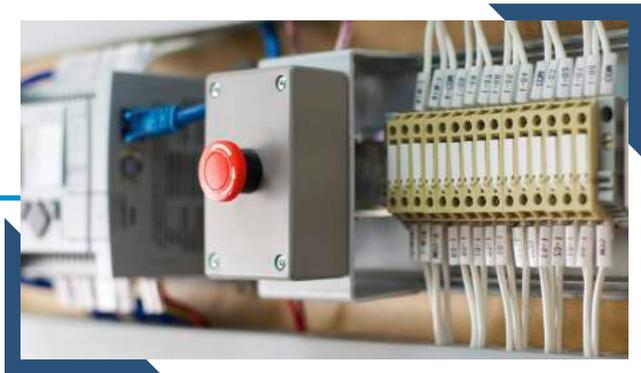
**Implementation**

<b>Task</b>	<b>Outcome/Deliverable</b>
Identify Common, Shared (common to a subset of jobs or areas), or Unique Tasks	The items identified include common components, tools, and tasks.
Develop Job and Task Lists	A complete list may contain equipment, components, and tasks that are used by a job area or by equipment.
Create Responsibility Matrix for Each Job by Level	We identify knowledge requirements and applicable courses by job level.  Performance requirements are also identified.
Develop Curricula • Select maintenance fundamentals training materials	We create a list of TPC materials applicable to your maintenance workforce, including: <ul style="list-style-type: none"><li>• Theories</li><li>• Terminology</li><li>• Tools</li><li>• Techniques</li></ul> The list notes courses that are shared across job areas and those unique to specific systems.
Develop Training Progression Matrixes	We identify the required knowledge and skills for each training or progression level.  We then identify training materials or exercises to ensure trainees can satisfy requirements.



**Implementation**

<b>Task</b>	<b>Outcome/Deliverable</b>
Determine Requirements for Introduction and Rollout of Program	We develop a strategy to successfully implement the training program.
Train Personnel to: <ul style="list-style-type: none"><li>• Administer/Manage Training Programs</li><li>• Develop Training Programs</li><li>• Develop Plant/Job/System Specific Training Materials<ul style="list-style-type: none"><li>– Classroom (directed)</li><li>– Self-Paced</li></ul></li><li>• Deliver Training<ul style="list-style-type: none"><li>– Classroom</li><li>– On-the-Job</li></ul></li><li>• Assess Training Outcomes<ul style="list-style-type: none"><li>– Knowledge</li><li>– Performance (Skills)</li></ul></li></ul>	We accomplish this through our workshops, which include: <ul style="list-style-type: none"><li>• Training Skills Workshop</li><li>• Instructional Systems Design (ISD) Workshop</li><li>• Job Task Analysis and Training Design Workshop</li><li>• Procedure Writing Workshop</li><li>• Test Construction Workshop</li><li>• Classroom Presentation Skills Workshop</li><li>• Custom Development</li></ul>
Provide General Consulting Services	Our experts can: <ul style="list-style-type: none"><li>• Audit existing programs</li><li>• Assist with program upgrades</li><li>• Assist with implementation and program rollout</li><li>• Facilitate TNA survey process</li><li>• Facilitate training team meetings</li></ul>



# ***TPC Consulting Services***



- Consulting
- Training Needs Analysis
- Job Needs Analysis
- Course Development
- Workshops
  - Training Skills
  - Instructional Systems Design (ISD)
  - Job Task Analysis and Training Design
  - Procedure Writing
  - Test Construction
  - Classroom Presentation Skills
  - Custom Development
- Instructor-Led Training
  - Industrial Maintenance
  - Fleet and Mobile Equipment Maintenance



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