Using a Standard to Develop Safety, Health and Environmental Training

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“Working Safe, Preventing Injuries, Protecting Profits”
Have you ever asked yourself or a coworker:

How do I develop a training course?
How do I know if the training was effective?
Is there an easier way?
Training Standard

• Released early 2016
Learning Objectives

• By the end of this seminar, you should be able to:
  • Explain why a Training Program is needed
  • Develop, deliver, and provide training that meets the voluntary standard
  • Set up a Training Program to ensure training is being conducted according to needs and ensuring documentation of the development process.
  • Navigate through the standard
Agenda
Advantages

• A standard system/process to develop an effective Training Program
• A standard system or process to develop Training Course
• Standardized process or system means quality training is delivered and learning objectives are achieved consistently
PP = TP???

I have a PowerPoint (PP) developed on a specific topic. This is my Training Program (TP). Right?

What is the difference between a PowerPoint and a Training Program?
Training

• “...any activity provided to trainees to gain, improve, or retain specified knowledge, skills, or abilities.” (2.9)

• Developed to “...improve the occupational safety, health, or environmental knowledge, skills, or abilities used by the trainees in the performance of their jobs.” (4.0)

• What is the difference between education and training?
  • Theory versus skills
Training Program

• “...an established system of managing, developing, delivering, evaluating, and documenting {SHE} training.” (2.12)

• Administered by an individual or individuals with assigned responsibilities and accountabilities
Need for A Training Program

- Training should not be a series of non-related training events (3)
- To ensure adequate administration and management
- Budget is available
- Competent training professionals are utilized
- Compliance with regulations – federal, state, local
- Technical expertise and references are used to develop & deliver training
- Suitable facilities are utilized for training
- Documentation is maintained on training events (3.3)
Safety Management System

- Integral part of a comprehensive safety management system(3)
- Section 5.0 “Implementation and Operation”
- Element 5.2 “Education, Training, Awareness, and Competence”
Training Program

• Overall system for administering SHE training events which includes
  • Conducting a Needs Assessment (4.2)
    • For individual or employee group training
  • Developing Learning Objectives (4.3)
  • Designing specific training course (4.4)
  • Trainee evaluation & criteria for successful completion (4.5 & 4.6)
  • Course evaluation and improvements (4.7 & 6)
  • Documentation and Recordkeeping (7.0)
Needs Assessment

• Is training the right tool for a specific need?
  • Possibly not
  • May need other corrective actions
    • Example: Need a different tool or workstation set-up along with training to reduce the potential for injury
Needs Assessment

• Conduct a formal & documented Hazard Assessment to include: (4.2.2)
  • Training audience characterization
  • Identify what trainees are required to know or do
  • Gather site-specific information
  • Consideration of trainees abilities, languages, culture, or literacy
  • Previous training trainee has had
  • Identify applicable regulations and standards
Needs Assessment

• Identify how a task is actually performed versus just discussing how it should be done
  • Identifies gaps in knowledge or task skills
  • Identify why current SHE procedures cannot or will not be followed (B.4)
Job Analysis (JA)

- Identifies the following: (B.6)
  - Duties & tasks
    - Performed by experienced and qualified person
  - Environmental factors
    - Indoors/outdoors, temperature, work area/space, lighting
  - Skills, knowledge, and abilities required to perform the task
  - Acceptable standards of performance
  - Frequency and importance of specific tasks performed
  - Hazard analysis/risk assessment of the tasks

- JA should be conducted/reviewed on a regular basis to keep current information
If No Job Analysis (JA)...

- Training Program may: (B.6)
  - Cause Instructor to spend a lot of time on items that are not necessary for the trainee to know
  - May not cover items the trainee absolutely needs to wok safely
Needs Assessment

• Sources for identifying training needs (B.5)
  • On-site task or Job Analysis (JA)
  • Observe & question person performing task
  • Question the Supervisor & management
  • Survey of injuries, illness, & near-miss reports
  • Standard Operating Procedures (SOPs)
  • Review of regulations & standards
## Adult Learning Principles - Styles

**• Respect & respond to individual learning styles (5.2.4)**  
(adapted from https://teach.com/what/teachers-teach/learning-styles/)

<table>
<thead>
<tr>
<th>Visual Learners</th>
<th>Auditory Learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn through the use of pictures,</td>
<td>Learn through listening and speaking in situations</td>
</tr>
<tr>
<td>sketches, drawings, maps, tables,</td>
<td>such as lectures or group discussions; use repetition</td>
</tr>
<tr>
<td>charts, etc. to understand new</td>
<td>as a study technique.</td>
</tr>
<tr>
<td>information</td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Read &amp; Write</th>
<th>Kinesthetic Learners</th>
</tr>
</thead>
<tbody>
<tr>
<td>Learn through word; reading then</td>
<td>Prefer opportunities for hands-on learning such as</td>
</tr>
<tr>
<td>understanding; taking notes; writing</td>
<td>problem solving by actually doing; example: donning a</td>
</tr>
<tr>
<td>concepts into words</td>
<td>respirator instead of being told how</td>
</tr>
</tbody>
</table>
Adult Learning Principles

- Adjust the tone and pace of delivery to accommodate trainees
- Coach and counsel trainees
- Value (& use) experience of the trainees
- Encourage active participation
- Provide timely responses & feedback
Learning Objectives

• Written for each training course & stating: (4.3)
  • Target audience
  • Desired knowledge, skills, attitudes, and abilities to be learned
  • Conditions for the skill or ability is demonstrated by trainee
  • Criteria for achieving objective successfully
• Objectives to be S.M.A.R.T.
  • Specific, measurable, achievable, reasonable, time-based
• Any pre-requisite training or knowledge
Write Learning Objectives

• Determine the jobs/tasks, conditions to perform, and determine how well the task needs performed (B.8)

• Learning Objectives for every training course
  • Only need-to-know information is provided during training
  • Objectives are clear so that Instructors and trainees both understand
  • Identify the tools/equipment the trainee will be using
Design the Course – Content Development

• Only information needed to achieve the stated learning objectives (4.4.2)

• Based on current technical information
  • Technical literature
  • Scientific principles
  • Judgement of subject-matter experts
  • Site-specific issues
  • Target audience
  • Industry standards & regulations
Design the Course – Content Development

• Eliminate unrelated material from the course that does not lead to achieving objectives (B9)

• Sequence the training
  • Move from simple to complex
  • Familiar to the unknown
  • From concrete principles to abstract principles
    • Concrete principles are tangible and you can experience them with your five senses. Abstract principles are intangible things, like feelings, ideals, concepts and qualities.
      • Follow Procedures (concrete)
      • Personal motivation to not be hurt (abstract)
Design the Course – Content Development

- Tasks to be presented in a series of steps
  - Gradually increasing difficulty
- Job relevance to be demonstrated
- Identify prerequisite training, skills, knowledge, experience, or abilities (B12)
  - Is the course basic/general information or more in-depth technical information?
Design the Course – Delivery Methods

• Consider the target audience and learning styles (4.4.1)

• Provide feedback to the trainee questions and concerns to ensure comprehension of course content

• Delivery methods to support learning objectives
Design the Course – Delivery Methods

• Variety of methods (E4.4.1)
  • Lecture
  • Discussion
  • Classroom exercises
  • Demonstrations
  • Guided practice
  • Interactive group activities
  • On-the-job Training (OJT)
  • Computer based training
  • Combination of methods
  • Other alternative methods
Design the Course – Materials

• Materials to be appropriate for target audience, delivery method(s), and learning objectives (4.4.3)

• Materials may include:
  • Trainers Guide
  • Trainee manual – PowerPoint slides???
  • Exercises/handouts
  • Equipment/tools for hands-on
  • Training aids
Design the Course – Materials

• Training aids (B.10)
  • Used to fill the gap between verbalization and direct, real-life experiences
  • Fit the interest and abilities of the target audience
  • Most appropriate for the learning activity
    • Not just because it is available
Design the Course – Location & Schedule

• Location (4.4.5)
  • Safe & healthy physical environment appropriate for target audience, delivery method, & for achieving the learning objectives

• Schedule (4.4.6)
  • Appropriate for target audience, delivery method, for achieving the learning objectives, & in compliance with regulatory requirements
  • Include estimated total duration of training time & for each topic
    • Include time to address trainee questions & concerns
Design the Course – Location & Schedule

• Time allocation is based upon: (B.16)
  • Work schedules
  • Trainee abilities and requisite knowledge
  • Instructional materials
  • Amount of detail in course content
  • Content difficulty
  • Method of trainee evaluation
  • Number of trainees & Instructors
  • Logistics of moving trainees between locations
  • Regulatory requirements
  • Initial or refresher training

• Review the time allocation regularly & revise
Trainer Qualifications

• Identify minimum Trainer qualifications (4.4.7)

• Specify the Trainer to trainee ratio for training events

• Qualifications – subject matter expertise, training & delivery skills
  • Gained through training, education, and/or experience

• Regulatory requirements for Trainer qualifications
Trainer Qualifications

• Continuing education for Qualified Trainers (5.1)
  • To maintain knowledge, skills, & abilities
  • To remain subject matter experts
• Documentation of knowledge, skills, & abilities
  • Resume
  • Con-ed. certificates
  • Certifications from other accrediting organizations
  • Licenses, registrations
Trainer’s Guide

• Providing standardized information for each course means quality training is delivered and learning objectives are achieved

• Developed for each training course (4.4.4)
Trainer’s Guide

- To include: (E4.4.4)
  - Stated learning objectives
  - Course prerequisites
  - Refresher training requirements
  - Time allocation schedule
  - List of required training aids
  - Directions on running demonstrations/activities
  - Location requirements
  - Emergency procedures
  - Evaluation tools – course and Trainee
  - Trainer Qualifications
  - Trainer to trainee ratio
  - Training aids needed
  - Date of publication & revision date
Trainee Evaluation

- Define “success” of the training and trainee
- Evaluate the trainee’s achievement of the learning objectives (4.5)
  - Have they gained the knowledge, skills, abilities, and/or attitude
- Determine the criteria for completing a training course (qualitative measures)
  - Test score
  - Number of steps correctly performed in order per task
  - Successful completion of a project
Trainee Evaluation

• Set attendance or participation requirements
• Determine alternate procedures: (4.6)
  • Full retraining
  • Remedial training
  • Re-test
  • Test-out, if applicable
• Other considerations
  • Literacy
  • Other languages
Trainee Evaluation

• Evaluation results will be provided to trainee (6)
  • Provide feedback to trainee on level of success
  • Trainee may review course materials to reinforce areas in which success is lacking
Trainee Evaluation Tools

• Tools to use to evaluate trainee (E6.2.2)
  • Written test
  • Oral examination
  • Completion of an assigned project
  • Demonstration of the skill in a simulated work setting
  • On-the-job demonstration of the skill in the Trainer’s presence
• May administer pre- and post-tests
Trainee Evaluation Tools

• Observation of Performance (6.2.3)
  • Verify the trainee can demonstrate the targeted skills and/or abilities under actual work conditions
  • May use pre- and post testing to identify gaps
    • How successful is the trainee before the training?
    • How successful is the trainee after the training?
    • What are the continued gaps after the training?
  • Gaps may indicate
    • Retrain the trainee
    • Revise the course content
    • Need a different Trainer
Training Course Evaluation

• Training Course to be revised periodically per a specified plan (4.7)

• Using the information from trainees’ course evaluations as a basis for revisions
  • Trainee satisfaction with the course (6)
  • Trainer’s abilities to train
    • Effectively transfer knowledge, skills, abilities, and/or attitude to trainee
Training Course Evaluation

• Other sources to determine revisions: (B.7)
  • Job analysis data to eliminate unneeded information
  • New knowledge, skills, and/or abilities required to perform task
  • Regulatory updates or new regulations
  • New information discovered after course development
  • Incident investigations – near-hits, injuries, other incidents
Training Event/Course Evaluation

- Trainees may complete a Reaction Survey (6.2.1)
  - Subjective evaluation
    - Trainer’s skills
    - Accommodations
    - Pace of the training event
    - Difficulty and usefulness of course content
- Information is used to revise the Training Course, as appropriate
Training Event/Course Evaluation

Tools

• Organizational Results (E6.2.4)
  • Increase in safe behaviors of the trainees
  • Increase in reduction of near-hits and/or injuries
  • Reduction in WC claims
  • Improved compliance
Continuous Improvement

- Information from trainee evaluations & course evaluations used to improve (6.3)
  - Course content
  - Delivery methods
  - Learning materials
  - Learning environment
  - Evaluation methods
  - Trainer
Documentation & Recordkeeping

• Recordkeeping System (7.1.1)
  • Ensure records are maintained, retrievable, and identifiable
  • Ensure records are current, accurate, and dated (initial release and revision)
• Specific retention period
  • Company policies
  • Regulatory requirements
  • Meet regulatory requirements for recordkeeping
• Document control procedures
  • Controlled/uncontrolled copies
Documentation & Recordkeeping

Development Records (7.2)
- Target audience
- Learning Objectives
- Sources used to develop course materials
- Copy of training course materials
- Plan for evaluation & continuous improvement

- Plan to ensure meeting regulatory requirements & industry standards for availability, disclosure, confidentiality, and trade secret protections.

Delivery Records (7.2)
- Training date, duration, & location
- Name & description of the course
- Trainers names
- Delivery materials used
- Names of trainees
  - Participated/successful
- “Certification” of training, testing, & successful course completion
Documentation & Recordkeeping

• Certification is the issuing of a certificate
  • Most “certifications” are internal by employer
  • Some certifications issued by outside organizations
    • Examples: NCCCO for cranes, American Red Cross

• Certificate is written documentation that the course was successfully completed (7.4)

• Certificates are issued only to trainees who have successfully completed the course
  • Met the criteria for completion
Documentation & Recordkeeping

- Certificate or written documentation to contain (7.4):
  - Certificate or written documentation to contain:
  - Unique numeric identifier per trainee
  - Name of the trainee
  - Course title
  - Trainer’s name
  - Statement that trainee successfully completed the course
  - Training Provider name & address
  - Periodic refresher date or expiration date
  - Level of training
  - Any information required by regulation
  - Number of credits, if applicable
  - Signature of Trainer or Training Provider
Training Program Evaluation

• Training Provider to periodically evaluate
• May be conducted
  • Set frequency
  • Following workplace events
    • Fatality
    • Serious incident
    • Regulatory inspection
Training Program Evaluation

• Elements to be evaluated by Training Provider (3.4)
  • Program management & administration
  • Training process
  • Training results
  • Trainer quality and their delivery methods
# Training Program Evaluation

(E3.4.2)

**Management of the Program**
- Accountability & Responsibilities
- Development process
- Delivery process
- Evaluation process

**Administration of the Program**
- Staffing
- Budgets
- Facilities
- Equipment
- Documentation & recordkeeping
Training Program Evaluation

• Training process (E3.4.2)
  • Clarity /applicability of training goals
  • Relevance to trainees of the training goals
  • Learning objectives
  • Content & methods that support the learning objectives
  • Training results/effectiveness
Training Program Evaluation
(E3.4.2)

- Training Results/Effectiveness
  - Definite plan to conduct regularly scheduled training
  - Plan for conducting/re-affirming needs assessments
  - Long-term & strategic planning for training
  - System to identify competing demands and to set training priorities
Summary
Qualifier

• Presentation may be available on the ASSE WPA website; http://westernpa.asse.org/

• Use the ANSI Z490.1 standard
  • Do not use only this presentation
    • I did not cover all sections in the standard
Questions or Comments?

Thank you!

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