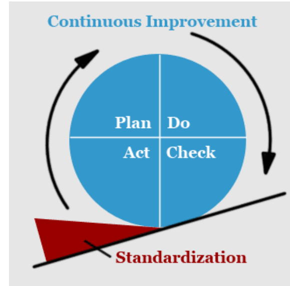
New Jersey Department of Environmental Protection
Compliance & Enforcement

STRATEGIC TRAINING PLAN

INTRODUCTION

This training plan will be utilized by all Compliance and Enforcement programs in the formation, implementation, and ongoing tracking of all training and outreach provided to the public. It is a comprehensive, systematic and detailed training plan to provide consistency amongst all Compliance and Enforcement programs and allow the programs and management to measure and adapt training needs in a coordinated manner. This plan will also track and analyze metrics and feedback obtained from stakeholders before, during and after training events in order to allow for continuous improvements.



It is based upon the ADDIE model which is a systematic, step by step framework used by trainers to ensure four goals are met.

A	Analysis	Answers: What is the Performance Goal?
D	Design	Answers: How will Learners accomplish the Performance Goal?
D	Development	Meeting the Objectives
I	Implementation	Delivering the Solution
E	Evaluation	Ensuring Quality

Specifically, these goals include:

1) learners will achieve the goals of the course
2) evaluation of the learners needs
3) design and development of training materials
4) evaluation of the effectiveness of the training using processes with specific, measurable outcomes.

This plan will focus our education resources to provide targeted, timely training to increase understanding and compliance with NJDEP regulations, encourage the regulated community towards better behavior, to go beyond compliance and embrace environmental stewardship, and promote, improve and encourage an open dialogue between Compliance and Enforcement and its customers.

I. ANALYSIS

One of the most important steps in the development of a training program is the initial analysis/assessment. As stated in the ADDIE model "during analysis, the designer identifies the learning problem, the goals and objectives, the audience's needs, existing knowledge, and any other relevant characteristics. Analysis also considers the learning environment, any constraints, the delivery options, and the timeline for the project."

Within Compliance & Enforcement, each program shall identify a minimum of 2 target audiences per year and provide a minimum of 2 seminars or outreach events per year. The steps to perform when developing a seminar program for your program shall be as follows:

- Perform a Needs Assessment
- Develop a Problem Statement
- Establish Goal(s)
- Determine what Activities/Outputs will be performed
- Determine what Outcomes are desired

Needs Assessment

The first step in initial analysis/assessment of programs is to perform a Needs Assessment of the target audience. The University of Arizona Cooperative Extension Service (UACES) states "there are many methods of learning about clientele needs, including use of existing data, conducting surveys, community forums of focus groups, and working with advisory committees or key informants." Determining the needs of our audience(s) can be done by performing the following steps:

- Evaluate existing NJEMS data to find what issues need emphasis –identify and target the most environmentally important compliance improvement opportunities within your program
- Justification for proposed training- determine cost benefit- # attendees/target audience/does it correlate to significant environmental benefit
- Hold stakeholder meetings with internal and external stakeholders to get input
- Survey the target audience(s) to find out what they think is important
- Develop a committee made up of staff to evaluate the data and plan the program

Problem Statement

After a needs assessment has been performed you can develop a Problem Statement which is a brief statement explaining the need for the program. A problem statement could be something as simple as: "NJEMS data indicates only 40% of Hazardous Waste Generators manage containers of hazardous waste in compliance with the regulations."

Goal(s)

The next step in the process is to develop goals for the life of the program. An example of a goal statement using the above example could be "Ensure that the rate of compliance with the Hazardous Waste container management regulations is at least 50%."

Activities/Outputs

Development of Activities/Outputs is the next step. These are the actual things that you will do to achieve you program goal(s). In our case, the activity will be the presentation of seminars/outreach. However, to really ensure the achievement of your goal(s), other activities should be performed such as compliance evaluation inspections, advisories, newspaper articles, and compliance assistance inspections.

Outcomes

The outcomes of the program are the actual impacts the program anticipates for the target audience. The outcomes are usually grouped as short, medium and long term outcomes, which can be further expanded as follows:

Short: Change in –

- Knowledge
- Skills
- Attitude
- Motivation
- Awareness

Medium: Change in –

- Behaviors
- Practices
- Polices
- Procedures

Long: Change in situation–

- Environment
- Social conditions
- Economic conditions
- Political conditions

UACES has an excellent website dealing with the subject of Program Planning and Evaluation. The website, entitled "The University of Arizona Cooperative Extension Program Planning Website" is available at http://extension.arizona.edu/evaluation/. The website provides links to other University Extension Systems, so you can gather even more information on the subject.

NJDEP
COMPLIANCE & ENFORCEMENT

TRAINING ANALYSIS CHECKLIST

Name/Date: ___________________________

Needs Assessment

Methods used/justification:
1) ____
2) ____
3) ____

Problem Statement

____

____

Goal(s)
1) ____
2) ____
3) ____

Activities/Outputs
1) ____
2) ____
3) ____
4) ____

Outcomes
Short ____
____
Medium ____
____
Long ____
____

II. Design

In the Design phase of training development, you are planning (designing) how the training course should look in order to meet the needs identified in the Analysis phase. The Design phase is where you are creating the blueprint of your training course.

At the start of the Design phase, you should have a pretty good idea of what the participants will already know when they start the course. You should also know what participants will need to learn during the course. You should have these answers from the Analysis phase.

Next, you review the course's learning objectives/outcomes from the Analysis phase and consider the following questions:

- How should course content be organized?
- How should ideas be presented to participants?
- What delivery format should be used?
- What types of activities and exercises will best help participants?
- How should the course measure participants' accomplishments?

The answers to these questions help you produce the instructional design document. This document describes the course structure and its instructional strategies.

During the Design phase, you do not create the course content. The actual course content and training materials will be created during the Development phase.

There are basically three steps in the Design phase:

- Plan the instructional strategy
- Select the course format
- Write the instructional design document

Instructional Strategy

Developing an Instructional Strategy

At this point in the Design process, you make important choices about the course's structure and its methods. Overall, these choices combine to form a comprehensive instructional strategy to help people achieve the course's learning objectives.

You draw upon theoretical knowledge and practical experience when you create instructional strategies for courses.

There are many different ways to sequence and present content to participants. It's your responsibility to choose the correct instructional strategies for the course and the participants.

There are three issues that you should consider in creating an instructional strategy:

- How will course material be grouped and sequenced?
- What instructional methods and tactics will be used to present material?
- How will assessments measure a participant's success?

These three issues often overlap with each other; a choice in one area may affect the other areas.

Grouping and Sequencing Content

You must decide if any of the course's learning objectives should be grouped together. You can't teach everything at once, but sometimes it makes sense to put related topics together for the participants. These related topics can form the basis for a course module.

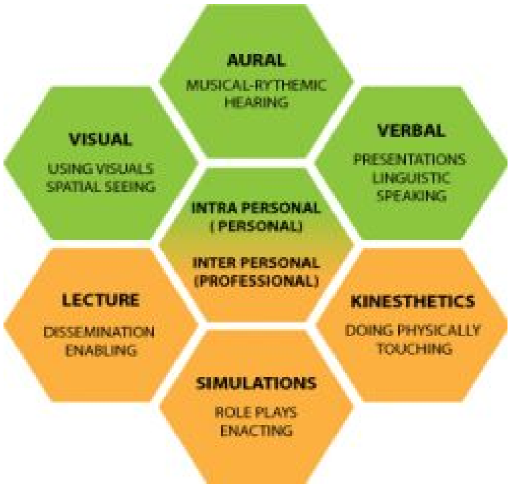
Once topics have been grouped together, you have to organize the content into a course structure. The content inside of each group needs to be sequenced and then the groups themselves need to be sequenced together to form the course structure. Here are just a few of the many possible sequencing options:

- Step-by-step
- Part-to-whole
- Whole-to-part
- Known-to-unknown
- General-to-specific

As you can see, there are many different ways to organize and present course material. You choose the structure that makes the most sense for the participants and the course content for your program and audience.

Choosing Methods and Tactics

In the Design phase, you also have to decide how the course material will be presented to the participants. Here are a few examples of the different types of learning activities or exercises:



- Group discussions
- Modeling
- Scenarios
- Mnemonics
- Drills
- Applied practice

Designing Assessments

During the Analysis phase, you created the learning objectives that defined measurable tasks and criteria for success. Now, in the Design phase, you need to create assessment tools that will measure the participants' progress.

The course's assessments should measure a participant's progress towards each of the learning objectives. The types of assessment must fit the learning objective.

Selecting the Course Format

The course delivery method impacts how participants experience the course and its content. If you choose the right delivery method, it will make the learning process easier for the participants. However, if the delivery format doesn't fit the content and participant's needs, then the course will have very limited success.

Course Delivery Options

Here's a list of some of the common course delivery format:

- Instructor-led courses
- Paper-based self –study materials
- e-Learning – self-paced such as video (online or DVD) or videoconference (webinar)

Instructional Design Documents

At the end of the design phase, you write an instructional design document. This document provides more than just a simple course outline; it provides a high-level overview of the entire training solution.

Your instructional design document provides detailed instructions on how to build the course, but it doesn't contain any actual course content; it's similar to an architect's blueprint or a software engineer's design document.

Generally, an instructional design document will perform the following tasks:

- Describe the overall learning approach
- Identify instructional media choices
- Cluster and sequence objectives
- Describe course exercises, activities, and assessments

Together these elements create the overall instructional strategy for the course. A short course might have a very simple design document, but complex and lengthy courses can have very detailed design documents.

The instructional design serves as a major quality assurance checkpoint. You and your team discuss and agree to the design before development begins. It's a lot easier to adjust the design than redevelop materials later in the project.

SAMPLE

INSTRUCTIONAL DESIGN DOCUMENT

DESIGN PHASE TEMPLATE

Instructional Design Document for
eEEMPR Training
Air – C&E

Learning Objectives

At the end of this training, participants will know how to –

1. log on to DEP portal
2. Maneuver within the DEP portal
3. Request and complete EER spreadsheet
4. Upload, certify and submit EER spreadsheet

Instructional Strategy

Grouping and Sequencing of Content

a. DEP web portal – step-by-step
b. EER spreadsheet – step-by-step

Course Assessment

a. Pre Test / Post Test

Course Delivery Format

Course delivery will be Instructor-led

III. Development Phase

The development phase is where you create and assemble the contents of your training. Course materials are produced according to decisions made during the design and analysis phases. It includes determining and developing appropriate activities and evaluation documents to aid your attendees in their quest for better behavior, increased regulatory compliance, stewardship and promotion of environmentally sound operations and practices.

The Development phase can be broken down into the following five components:

- Review/revise existing information sources/training materials;
- Selecting appropriate methods and media;
- Developing all new course materials;
- Validating course materials; and
- Developing an Instructional Management Plan

Review/revise existing literature/training materials

If you have existing training materials – great – but don't skip this step. You will likely have feedback from your last training which needs to be addressed. Moreover, DEP regulations and policy change often; training materials must be updated to reflect these changes. This is your opportunity to make your training even better.

- Review the evaluations and metrics gathered from your last training to determine if course materials need revision based on feedback. Revise training materials accordingly.
- Update existing training materials to reflect regulatory and policy changes.
- Search for additional/improved training materials that can be incorporated into your training both from within DEP and elsewhere. Revise training materials if warranted.*

*If new materials need to be developed, see "Developing all new course materials below" for guidance.

Select appropriate methods, media, and instructors

During the design phase, you determined (or at least considered) the sites that will be used for your training. Keep in mind that the physical layout and audio visual capabilities of the training site may limit you in the methods and media you can choose for your training. For example, it's difficult to do small group exercises if breakout rooms are not available. Ask yourself – what should the course generally entail and what will I need to deliver it. For example, if the training seeks to teach folks how to use a DEP online registration system, then you'll likely want computers/internet access at your training site. In selecting your methods and media, you may want to consider the following:

- Assess what your training venue offers? Can you do PowerPoint, show video/audio clips, and have access to breakout rooms?
- Does your training use a mix of methods, media and delivery? Whenever possible you should use a mix of methods and media. Choose activities that are both fun and help your audience learn the needed skills and knowledge. You'll probably have to pack a lot in little time, so every bit has to advance the group towards its learning goal. Mix practice sessions in with instructional periods for better knowledge retention. Lastly, consider the use of materials that are not created specifically for instruction – such as snippets from movies, TV, magazine ads, etc. (just beware of copyright laws). "Classrooms that focus on the instructor are rarely places where learning occurs."

- Choose instructors that have appropriate knowledge of the subject for the audience.

- Train instructors if necessary in public speaking skills, PowerPoint, technical training, etc.

- Check your program's budget for how much you can spend on printing, design, copying, training instructors, etc.

Develop all new course materials

In addition to the actual materials used to teach the course (PowerPoint's, video, flip charts, etc.), you will need to develop evaluation materials, marketing materials to advertise your training, any information which must be shared in advance of your training (such as pre-requisites) and a participant package which includes only those materials that will help your learners master the training course. Here are some things to consider:

Revise training materials to incorporate new material. Do a Google search for best practices/updated information; look at EPA, other state regulatory websites, relevant trade association sites, and even blogs. Make sure any materials you intend to use from these sites are legal to use.

- Check for training materials from other courses/sources that can be adopted or redesigned for use in your training. Revise as necessary. These could include materials developed in-house, but could also be material developed by other outside parties. Care should be taken, however, not to select material just because it is available.

- Focus your course materials on the 'need to knows' rather than the 'nice to knows'. Material focus should be environment based – training to focus on the why of the regulation. i.e., how the environment benefits from compliance with regulation. Using your evaluation materials (such as a post test) can help you determine the need to know materials.

- Do your materials include a piece on environmental stewardship?

- Are course materials customized to your audience?

- Develop evaluation materials. These can be as simple as an exit survey to a post test with grading. Just make sure that the type of course evaluation you develop both provides you with useful feedback to improve your training, and a way to assess whether or not your attendees learned the "must knows."

- Do your course materials meet your learning objectives and will it work in the training venue you've chosen?

- Have you included real world scenarios that will interest your attendees and promote discussion that will further learning objectives?

- Develop training seminar announcements, publicity documents, promotion and other types of marketing materials.

Validate all course materials

It's important to make sure your course materials are accurate, complete, and meet all your training goals and objectives.

- Share course materials with both internal and external stakeholders to get feedback prior to implementation. Stakeholders should review for completeness, regulatory and policy accuracy. People who are actually trying to learn the regulatory material provide a very rigorous test for your material and they're often very willing to provide candid feedback.

Develop an instructional management plan

It is important to combine the training course materials into a smoothly transitioning presentation, a coherent whole that fosters learning the material.

- Develop an instructor guide for the course. This guide focuses on the what if's – for example, what happens if one of the instructors is sick? It may include, but is not limited to,
- an outline for the training, instructions for activities (if any);
- course agenda;
- instructor bios;
- list of key points that must be covered, and
- other information necessary to make sure the training session runs smoothly.

A good instructional management plan ensures that anyone can step in and conduct the training.

IV. Implementation Phase

The Implementation phase follows the Development phase and ensures that

- The course meets important business goals
- The course covers content that learners need to know
- The course reflects the learners existing capabilities

It is important that DEP management communicates the support of a particular training initiative and provides the time for the trainers and support staff to do a thorough job.

The Department's outreach efforts can take the form of classroom sessions or E-learning, as we have done for NJEMS training. There are a number of logistical issues that need to be addressed that are common to both types of training.

Common Issues

Course Materials

- How many copies of the course materials need to be printed?
- Will course materials be printed in-house or outsourced to a printer?
- How will course materials be delivered and who will be responsible?

Instructors

- How many trainers will be needed for the project?
- Will the trainers come from an in-house team or from an outside provider?
- Will the project require the trainers to travel?
- Should the trainers be geographically-based?
- How will the instructors learn to teach this course?
- Will the project require a train-the-trainer session?
- When and how will trainers receive their schedule?
- Who will be the technical contact for trainers?
- Can enhanced/leveraged use of multimedia training/partnerships be included?

Course Schedule

- Where will the courses be offered?
- On what dates and times will the course be offered?
- How will this schedule be communicated?

Classroom Space

- Will the classroom require any specific technology—computers, light box, etc.?
- Will the classroom requires desks, tables or just chairs?

Registration

- How will learners be enrolled for the course?
- How will course rosters be tracked?
- How will rosters be communicated to instructors?
- How will instructors record attendance and test scores?
- Will this course be entered into a learning management system?

Logistics

- Who will manage training administration?
- Who will manage training logistics?
- Who will be responsible for collecting and communicating these statistics?

E-learning Issues

Hosting

- Where will the course be hosted?
- How many learners will need to access the course in total?
- How many learners will need to access the course at any one time?

Access

- How will learners enroll for the course?
- Will learners be able to access the course through the web or will they need to connect to an intranet?

Learners' Computers

- Who will ensure all sites have internet-ready computers?
- Who will ensure that learners have all necessary applications loaded onto to their computers?
- Will learners need to download any applications or plug ins?

V. EVALUATION

Evaluation should be done continuously throughout the ADDIE process, and be used to align the proposed targeted training goals with specific measurable results as noted below. Measurement and analysis is the key to continuous improvement of the training provided to attain desired training goals. Success of the training seminar/outcome shall be measured in one of the following metrics in order of the most preferred to the minimal:

- General improvement in compliance/behaviors/actions and/or increased participation in the C&E Stewardship program - compare baseline data vs. post training data
- Improvement in compliance/behaviors/actions for the program and topics of concern
- Improvement in compliance/behaviors/actions by attendees or participants
- Retention of new knowledge by attendees or participants
- Increased training attendance or participation

Use of these metrics shall be documented for each training seminar in addition to feedback from stakeholders to adapt and revise the training needs for continuous program improvement. In selecting the best measurement above for the training seminar, it is important that emphasis is placed on alignment between the proposed training and the desired results/goals, ease of measurement, and accessibility of data.

The biggest challenge that makes evaluation more difficult within the context of NJDEP delivered Compliance Assistance seminars include the following:

- Attendance is usually voluntary, all regulated parties in each sector will not attend
- Participants can leave at any time
- Compliance Assistance sessions are a full day or less and may cover multiple topics with different levels of "customer" interest
- Testing might diminish participation
- How to accurately measure how much of the training transferred to the participants work setting

One way to evaluate success in delivering skills and understanding to participants the standard mode is to administer a Knowledge Test with true/false and/or multiple choice questions. If knowledge testing is chosen then the following guidance should be applied:

- Create questions that focus on the primary course objectives.
- Only develop questions to which there were clear answers provided during the course.
- Develop a test that will take between 10 to 15 minutes to complete.
- Have a balanced mix of True/False and Multiple Choice questions.

Post training surveys are also an effective means of gauging participant learning, areas needed for future training, and other training improvements and enhancements needed within such areas as instructors, materials, locations etc..

Resources have been included within the back of this plan to use within C&E, including sample surveys, tests, registration, sign in sheets, advertising, and listerv information.

In addition, a centralized ACCESS database, Training Initiatives, has been created to summarize and track all training seminar/outreach data within C&E. It will be updated by the designated C&E training program lead.