Tools for Trainers

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STAPPA/ALAPCO/EPA
Joint Training Committee

Tools for Trainers
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Acknowledgments

Tools for Trainers was prepared by the Joint STAPPA/ALAPCO/EPA Training Committee. The Work Group, which reviewed and commented on the project, was chaired by Mary Boyer (California Air Resources Board) who is also STAPPA Chair of the Joint Training Committee. Members of the Work Group included Tom Allen (NESCAUM), Bob Hague (Rutgers/EOHSI), Rick St. Louis (State of Pennsylvania), Ron Townsend (U.S EPA), and Susan Wierman (MARAMA). Bill Becker and Gail Lewkowicz of STAPPA/ALAPCO provided assistance and input. Many state and local agencies furnished materials which are duplicated in *Tools for Trainers*; the Texas Natural Resource Conservation Commission was generous in sharing its extensive work on staff development plans. Joel Ann Todd of The Scientific Consulting Group, Inc. provided assistance in assembling *Tools for Trainers,* with funding from the Education and Outreach Group, Office of Air Quality Planning and Standards, U.S. Environmental Protection Agency.

Tools for Trainers

What is Tools for Trainers?

Tools for Trainers is a notebook that contains information on many of the tasks that trainers and training coordinators must perform, such as how to design and conduct a needs assessment, how to evaluate training programs, and how to develop a training curriculum for agency staff. In addition to this "how to" information, there are examples of materials that have been developed and used by state agencies, local agencies, and EPA. These materials can be adapted for use in your agency. Tools for Trainers also contains up-to-date information on training providers.

The notebook is organized into four sections. Each section contains an introduction to that section's topic and examples of materials that can be used or adapted. There is a brief description of each example to make it easier for users to find the materials that are most likely to be relevant.

Who Will Find Tools for Trainers Useful?

Tools for Trainers is designed for training coordinators and others in state or local agencies who have responsibility for planning, conducting, and evaluating training programs. It will be particularly useful for those who are new to their jobs or who have never performed some of these tasks before, such as conducting a needs assessment or an evaluation.

User Registration
Tools for Trainers

Please complete this form and send to:

Gail Lewkowicz
STAPPA/ALAPCO
444 North Capitol Street, N.W.
Washington, DC 20001

We plan to update Tools for Trainers periodically and this will ensure that you receive these updates.

Name:_____

Title:_____

Agency:_____

Address:_____

_____

City:_____

State/Zip Code:_____

Telephone:_____

Fax:_____

E-Mail:_____

Thank you very much!

Feedback Form

We want to hear from you — what do you think of *Tools for Trainers*? How could we improve it? As you use *Tools*, please send us your ideas. Please send this form to:

Gail Lewkowicz
STAPPA/ALAPCO
444 North Capitol Street, N.W.
Washington, DC 20001

What do you find most helpful about *Tools for Trainers*?_____

_____

_____

_____

What suggestions would you make for improving *Tools for Trainers*?_____

_____

_____

_____

How have you used *Tools for Trainers*?_____

_____

_____

_____

_____

Optional:
Name:_____
Agency:_____
Address:_____
_____
Telephone._____Fax_____

Needs Assessment

Section A

Needs Assessment

Table of Contents
Training Needs Assessment Resources

Overview of Needs Assessment ..... Page A1

STAPPA/ALAPCO FY1998 Training Needs Assessment Survey ..... Page A5

This is the most recent version of the annual STAPPA/ALAPCO training needs assessment survey. It is intended to identify future trends in air pollution training needs and gaps in current training from a state and local perspective. It gathers information on the needs of the agency as a whole.

Air Compliance Inspector Basic Training Program Questionnaire .... Page A17

This form is intended to gather information on the needs of the agency as a whole. It was developed for the Ohio Regional Air Pollution Control Agency in preparation for delivery of the CARB 100 series, to further characterize the need for basic training and to obtain information on more intermediate or advanced training needs for the future.

Training Needs Questionnaire ..... Page A23

This one-page questionnaire was developed for the Michigan Department of Natural Resources, Air Quality Division. It was designed for staff who had already attended basic training, to learn about their needs for intermediate or advanced training and training in areas not covered by the basic course.

Training Needs Assessment Methodology and Instruments .... Page A27

This material was developed for the Texas Natural Resource Conservation Commission in 1994 and was used to conduct a needs assessment for TNRCC air program staff. It includes approaches and data collection instruments for managers, staff, and industry on the training needs of individual staff members and groups within an agency.

Draft Needs Assessment for Personnel in Mexico ..... Page A53

This needs assessment package was adapted from the TNRCC materials. It was designed to be implemented by staff from the Universidad Autonoma Metropolitana in Mexico. The draft materials are in English. It is designed to gather information on the needs of individual staff members and groups within an agency.

Participant Profile Page.A71

This form was developed to obtain information on course participants, specifically their level of knowledge of the subject matter coming into the course. This assisted the

instructors in tailoring their presentations to the appropriate level for the trainees and was used to assign participants to small work groups for course exercises.

Needs Assessment

Why Conduct a Needs Assessment?

Every training project should begin with some form of needs assessment. Sometimes this assessment is very informal, involving a discussion with the supervisor of the training participants or the potential participants themselves. In other cases, it is more formal, involving a survey of potential trainees or a job analysis. The needs assessment plays a vital role in focusing the training on the most important topics and providing the training on the appropriate level—in short, getting the most value for the resources invested.

Training needs assessments provide valuable information to training providers, enabling them to develop and offer the courses that will be most useful to agency staff. STAPPA and ALAPCO conduct a training needs assessment survey each year to assist training providers in planning their programs — if your agency conducts its own internal needs assessment in preparation for this survey, you will be able to report more accurately the types of training that you will need.

In conducting a needs assessment, it is important to differentiate between training "needs" and training "wants" so that scarce resources can be allocated most effectively. It is also important to probe expressions of training needs to get past symptoms of problems to the problem itself. Finally, it is important to separate those problems or issues that can be addressed by training from those that cannot be addressed by training and that are, in fact, management or resource issues.

How Can Training Needs be Identified?

Some training needs can be readily identified. Training needs can arise from many events or conditions, such as:

- ✔ changes in regulations
- ✔ installation of new equipment
- ✔ new procedures or modifications of existing procedures
- ✔ hiring of new staff or creation of new job positions.

For example, all new regulations require some staff training; in fact, STAPPA and ALAPCO sent a letter to EPA requesting that all new regulations be accompanied by appropriate training at the time of promulgation.

Training needs can also be identified from problems that have arisen. If staff are unable to complete their assigned workload or if work products contain errors, there might be a need for training.

Training can also be a morale-builder in an organizations, a way that the organization can indicate to its employees that they are valued.

One approach to assessing training needs is a discussion within the sponsoring agency or organization, including supervisors of the potential trainees and the trainees themselves. This discussion should explore issues such as objectives for the training, in terms of the desired knowledge, skill, and/or attitude changes that the training is intended to effect. If problems related to job performance are the primary reason for the scheduling of the training, these should be highlighted. If the training is intended to prepare staff to understand and implement new regulations, equipment, or procedures, these should be described.

Informal discussions within the agency provide vital information but are often inadequate for a complete and accurate needs assessment. Surveys of potential trainees and their supervisors are useful in pinpointing training needs. These surveys can be conducted through telephone or face-to-face interviews or through written questionnaires. These surveys can simply ask the potential trainees what they think their needs are, or the survey can delve into the roles and responsibilities of the potential trainees, the skills that they need to fulfill these roles and responsibilities, existing levels of knowledge and skill, and the gaps between the existing and required knowledge and skill.

Job analyses can also assist in identifying training needs. The job analysis consists of a delineation of the specific tasks that are performed by staff in various positions and the knowledge and skills that are needed to perform these tasks. The job analysis can be combined with an assessment of existing knowledge and skill levels to identify the gaps.

Agency staff can be reluctant to discuss training needs if they believe that this will reflect badly on them and their capabilities — they might be afraid to admit that there are aspects of their jobs that they do not feel thoroughly competent to perform. The use of anonymous questionnaires can overcome this reluctance, although this also reduces the agency's ability to target the training to those in need. Another approach is to have a third party or neutral outsider conduct the questioning and prepare the analysis. This third party can be someone from another part of the agency or a consultant. In the best of situations, the agency will cultivate an atmosphere in which enhancement of knowledge and skills through training is viewed positively and assessments of training needs are part of normal agency routine.

The needs assessment will assist in clarifying training goals and objectives. It can also gather information on appropriate training methods. For example, it is critical to know whether the potential training audience has access to satellite downlink sites if a satellite videoconference is planned. Or, if CD-ROM or Internet training is under consideration, it is important to know whether potential trainees have access to needed equipment at their own desks.

When analyzing needs assessment results, it is crucial to be as specific as possible. While it is useful to identify broad topic areas in which training is needed, it is more useful to determine what particular aspects of the topic are most important and whether the training should be at a beginning, intermediate, or advanced level. The analysis should also indicate the different needs of various subgroups within the agency staff — inspectors, permit writers, SIP developers, and other groups might have some needs in common but also are likely to have some needs that are very specific to their jobs and responsibilities. An accurate understanding of these different needs will enable you to pinpoint those staff members who should attend various training events,

thus avoiding wasting resources and time by sending staff to training that is irrelevant or at an inappropriate level for their needs.

The forms in this section of *Tools for Trainers* can be adapted by your agency to help you assess your staff's training needs. Adoption of a training plan or career ladder for staff will also help you determine the training needs of the staff, based on a prescribed curriculum (examples of training plans and career ladders are included in a separate section of *Tools*).

Tips on Using Needs Assessment Tools

This section of *Tools for Trainers* presents samples of needs assessment interview guides and written questionnaires that can be used or adapted for use by your agency. The steps to follow in designing your needs assessment include the following:

Step 1: Establish Objectives. Why are you conducting the needs assessment? To decide how to spend training funds in the upcoming year? To focus a specific course that you have selected? To identify individual staff members' needs so that training resources can be allocated among staff appropriately? To respond to the STAPPA/ALAPCO survey? Other?

Step 2: Select an Approach. What is the best approach to achieve your objective(s) — informal discussions, surveys of potential participants, job analyses? How much can you learn from existing information — for example, if the training need will be created by a new regulation, what skills and knowledge will agency staff need to implement the new regulation? Based on the approach selected, who should be included in the respondent pool — all or a sample of the potential trainees, their supervisors?

Step 3: Develop Materials and Procedures. Look through the materials in this section of the *Tools* notebook and select formats and questions that might apply. You can take portions of various different forms or you can use a format that you like and create new questions within its framework. If you don't know how you will use the answer to a specific question, leave it out! This will keep the questionnaire short, to the point, and easy for staff to complete.

Step 4: Pretest Materials and Procedures. If possible, you should pretest your materials and procedures with a few selected respondents. This pretest will tell you if your materials will gather the information you anticipate. It will also indicate those questions that can be easily misinterpreted. It is helpful to talk with the pretest respondents after they have completed the materials to discuss their suggestions for improving the forms.

Finally, let staff know that their participation in the needs assessment mattered — show them that the training planned for the agency and for individuals was based, at least to some extent, on their feedback.

STAPPA/ALAPCO
FY1998
Training Needs Assessment Survey

STATE AND TERRITORIAL AIR POLLUTION PROGRAM ADMINISTRATORS (STAPPA)

ASSOCIATION OF LOCAL AIR POLLUTION CONTROL OFFICIALS (ALAPCO)

☐☐☐ (01)

FY1998 TRAINING NEEDS ASSESSMENT SURVEY

AGENCY NAME: (02) _____

AGENCY ADDRESS: (03-07) _____

_____

EPA REGION: (08) _____

AGENCY TYPE: (09) ☐ STATE ☐ LOCAL/MUNICIPAL ☐ FEDERAL

PERSON COMPLETING THIS SURVEY:

NAME: (10) _____

TITLE: (11) _____

MAILING ADDRESS: (12-16) _____

_____

_____

TELEPHONE: (17) _____

FAX: (18) _____

E-MAIL: (19) _____

WHAT ARE YOUR RESPONSIBILITIES FOR TRAINING AT YOUR AGENCY? (20)

☐(A) TRAINING COORDINATOR

☐(B) SITE COORDINATOR FOR SATELLITE BROADCASTS

☐(C) BUDGETING, AUTHORIZING, AND APPROVING TRAINING

☐(D) OTHER _____

DID AGENCY MANAGEMENT REVIEW THESE RESPONSES? (21) ☐ YES ☐ NO

Please return one copy of this completed training needs assessment survey **by July 15, 1997** to:

Gail Lewkowicz
STAPPA/ALAPCO
444 North Capitol Street, N.W., #307
Washington, DC 20001-1512
FAX: (202) 625-7863

1. Does your agency have a structured staff development plan for training your air program staff? *(22)*
   ☐ **YES** ☐ **NO**
   If yes, please send materials describing this program when you return this questionnaire.

2. Does your agency's staff have access to external electronic **e-mail** from the Internet? *(23)*
   ☐ **YES** ☐ **NO**

3. Does your agency's staff have access to the **World Wide Web** on the Internet using their own computers at their desks (using web browsers such as Netscape Navigator, Microsoft Internet Explorer, or NCSA Mosiac)? *(24)* ☐ **YES** ☐ **NO**

4 Can your agency's staff use CD-ROM disks at their desk computers? *(25)* ☐ **YES** ☐ **NO**

5A. From the list below, please check the 10 course topics that will be most important for your agency and staff in Fiscal Year 1998 (October 1997-September 1998). (Note: ***this list includes topics for which courses are currently available***; question 6 addresses topics for which courses are *not* currently available.) *(26)*

- ☐ *(01)* Inspection Fundamentals
- ☐ *(02)* Fundamentals of Air Pollution Control
- ☐ *(03)* Air Toxics-Basic (including MACT)
- ☐ *(04)* Air Toxics-Advanced (including MACT)
- ☐ *(05)* Control of Particulate Emissions
- ☐ *(06)* Control of Gaseous Emissions
- ☐ *(07)* Air Pollution Dispersion Models
- ☐ *(08)* Basic Health and Safety
- ☐ *(09)* Baseline Source Inspection Techniques
- ☐ *(10)* Monitoring and Source Sampling
- ☐ *(11)* VOC Sampling and Analysis
- ☐ *(12)* Combustion Evaluation
- ☐ *(13)* Visible Emission Enforcement
- ☐ *(14)* Analytical Methods
- ☐ *(15)* Quality Assurance
- ☐ *(16)* NESHAPS
- ☐ *(17)* Enforcement Fundamentals
- ☐ *(18)* Advanced Enforcement
- ☐ *(19)* Multi-Media Enforcement
- ☐ *(20)* Enforcement Case Development
- ☐ *(21)* Criminal Enforcement
- ☐ *(22)* Permitting-Basic
- ☐ *(23)* Permitting-Intermediate
- ☐ *(24)* TitleV Operating Permits
- ☐ *(25)* Emissions Inventory
- ☐ *(26)* Data Management and Reporting
- ☐ *(27)* Supplemental Environmental Projects (SEP)
- ☐ *(28)* Pollution Prevention
- ☐ *(29)* Gasoline Distribution and Marketing

5B. For each of the 10 topics checked above in Question 5A, please go to the *Question 5B* ***Provider/Course Preference Matrix*** and indicate which providers and courses you would prefer to meet these needs. If you have no preference, check the "*no preference*" box. (27)

6 From the listing below of ***topics for which courses are not currently offered*** (or which you do not have access to), please choose the 5 course topics that would be most important for your agency in FY 1998 (October 1997-September 1998). (28)

- ☐ (01) Mobile Sources-Transportation Control Strategies
- ☐ (02) Mobile Sources-Conformity
- ☐ (03) Mobile Sources-I&M Techniques
- ☐ (04) Mobile Sources-Quality Assurance for I&M
- ☐ (05) Stage I and II Vapor Recovery Inspections
- ☐ (06) Emissions Inventory
- ☐ (07) New Source Review
- ☐ (08) New National Ambient Air Quality Standards (NAAQS) including ozone & PM_{25}
- ☐ (09) PM_{25} Monitoring, QA/QC, and Laboratory Operations
- ☐ (10) Emission Inventory Development for PM_{25} with Emphasis on Area Sources
- ☐ (11) PM_{25} SIP Development Requirements, Timelines, and Procedures
- ☐ (12) Market-Based Incentives and Emission Trading Programs
- ☐ (13) Regional Transport Fundamentals and Emission Management Strategies
- ☐ (14) PAMS (Photochemical Assessment Monitoring Stations) & PAMS Data Analysis
- ☐ (15) Air Toxics *(specify)*_____
- ☐ (16) MACT Standards *(specify)*_____
- ☐ (17) MACT Standards *(specify)*_____
- ☐ (18) Other_____
- ☐ (19) Other_____

7. Please check the 3 most important barriers to your agency's use of government- or private-sponsored training courses in FY 1998 (October 1997-September 1998). (29)

- ☐ (01) There is a lack of funds for training course fees.
- ☐ (02) There is a lack of travel funds.
- ☐ (03) We are not allowed to travel to out-of-state training courses, regardless of cost.
- ☐ (04 The content of available courses does not meet our specific training needs.
- ☐ (05) The quality of the training is not worth the time/money expenditure
- ☐ (06) The training courses are too long and require too much staff time.
- ☐ (07) The scheduling of training courses makes it difficult to attend.
- ☐ (08) The training courses are out-of-date or need to be updated.
- ☐ (09) Management of our agency does not perceive a need for off-site training courses.
- ☐ (10) We do not have access to the technology to receive satellite courses.
- ☐ (11) It is difficult to find out what courses are offered
- ☐ (12) Other_____

8. Please check the 4 most important items that your agency **needs** to support training in FY 1998 (October 1997-September 1998). *(30)*

- ☐ *(01)* Long-term funding for training.
- ☐ *(02)* Better communication from providers about available training courses & schedules
- ☐ *(03)* Travel funding for staff to attend training courses.
- ☐ *(04)* Updating of current training course materials.
- ☐ *(05)* Support for state/local development of training courses
- ☐ *(06)* Travel funding to bring trainers to our agency
- ☐ *(07)* More courses offered on-site (in state or region)
- ☐ *(08)* Access to satellite downlink for distance learning courses
- ☐ *(09)* Other_____

9 How important do you consider training for the accomplishment of your agency's mission? *(31)*

- ☐ *(01)* Vitally important
- ☐ *(02)* Very important
- ☐ *(03)* Somewhat important
- ☐ *(04)* Not very important
- ☐ *(05)* Don't know

10. Do you have any **additional comments** or suggestions? *(32)*

_____

_____

_____

_____

_____

_____

_____

_____

Please return this survey by July 15, 1997 to STAPPA/ALAPCO:

Gail Lewkowicz
STAPPA/ALAPCO
444 North Capitol Street, N.W., #307
Washington, DC 20001-1512
FAX: (202) 625-7863

Thank you.

QUESTION 5B: PROVIDER PREFERENCE MATRIX

Instructions: *For each of the 10 topics checked in Question 5A, please indicate which providers and courses you prefer to meet these needs. If you have no preference, check the "no preference" box Please indicate preferred providers and courses only for those topics checked in Question 5A.*

Topic (from Question 5A)	Providers and Courses/Course Numbers
☐ **Inspection Fundamentals** *(01)* ☐ *(e)* No provider/course preference	California Air Resources Board (CARB) ☐ *(a)* 100 Series/101-115 (5 days) EPA/National Enforcement Training Institute (NETI) ☐ *(b)* Basic Inspector Course/CST 109 (4 days) Rutgers/EOHSI ☐ *(c)* Fundamentals of Environmental Compliance Inspections-Level I (3 days) Other ☐ *(d)* (Provider/course)
☐ **Fundamentals of Air Pollution Control** *(02)* ☐ *(e)* No provider/course preference	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Principles and Practice of Air Pollution Control/452 (3 5 days) California Air Resources Board (CARB) ☐ *(b)* 100 Series/101-115 (5 days) Rutgers/EOHSI ☐ *(c)* Principles and Practice of Air Pollution Control-Level I (3 days) Other ☐ *(d)* (Provider/course)
☐ **Air Toxics-Basic (including MACT)** *(03)* ☐ *(d)* No provider/course preference	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Introduction to Air Toxics/400 (2 days) California Air Resources Board (CARB) ☐ *(b)* Dry Cleaning/287 (1 day) Other ☐ *(c)* (Provider/course)
☐ **Air Toxics-Advanced (including MACT)** *(04)* ☐ *(c)* No provider/course preference	California Air Resources Board (CARB) ☐ *(a)* Dry Cleaners/387 (1 day) Other ☐ *(b)* (Provider/course)
☐ **Control of Particulate Emissions** *(05)* ☐ *(d)* No provider/course preference	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Control of Particulate Emissions/413 (4 days) California Air Resources Board (CARB) ☐ *(b1)* ESPs/281 (1 day) ☐ *(b2)* Baghouses/282 (1 day) ☐ *(b3)* Aggregate Plants/243 (1 day) ☐ *(b4)* Concrete Batch Plants/244 (1 day) ☐ *(b5)* Hot Mix Asphalt Facilities/242 (1 day) Other ☐ *(c)* (Provider/course)

Topic (from Question 5A)	Providers and Courses/Course Numbers
☐ **Control of Gaseous Emissions** *(06)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Control of Gaseous Emissions/415 (4 days) California Air Resources Board (CARB) ☐ *(b1)* Incinerators/270 (1 day) ☐ *(b2)* Industrial Boilers/273 (1 day) ☐ *(b3)* Stationary Gas Turbines/272 (1 day) ☐ *(b4)* Landfill Gas Control/285 (1 day) Rutgers/EOHSI ☐ *(c)* Nitrogen Oxides Emissions Control Technology-Level III (2 days) Other ☐ *(d)* (Provider/course)
☐ *(e)* No provider/course preference	
☐ **Air Pollution Dispersion Models** *(07)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Air Pollution Dispersion Models/423 (3 days) MARAMA ☐ *(b)* Annual Workshop WESTAR ☐ *(c)* Advanced Modeling for $PM_{2.5}$ (3 days) Other ☐ *(d)* (Provider/course)
☐ *(e)* No provider/course preference	
☐ **Basic Health and Safety** *(08)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Inspection Procedures and Safety/446 (2 days) California Air Resources Board (CARB) ☐ *(b1)* Inspector Safety/104 (5 day) ☐ *(b2)* Advanced Safety/202 (1 day) Rutgers/EOHSI ☐ *(c)* Basic Health and Safety for Field Activities-Level I (3 days) Other ☐ *(d)* (Provider/course).
☐ *(e)* No provider/course preference	
☐ **Baseline Source Inspection Techniques** *(09)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Baseline Source Inspection/445 (3 5 days) California Air Resources Board (CARB) ☐ *(b)* Basic Air Pollution Control Equipment/107 (5 days) Rutgers/EOHSI ☐ *(c)* Baseline Source Inspection Techniques-Level II (3 days) Other ☐ *(d)* (Provider/course)
☐ *(e)* No provider/course preference	

Topic (from Question 5A)	Providers and Courses/Course Numbers
☐ **Monitoring and Source Sampling** *(10)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a1)* Monitoring and Evaluation of Toxic Air Pollutants/401 (4 days) ☐ *(a2)* Source Sampling for Pollutants/450 (5 days-lab) ☐ *(a3)* Atmospheric Sampling/435 (4.5 days-lab) ☐ *(a4)* Continuous Emission Monitoring/474 (4 days) California Air Resources Board (CARB) ☐ *(b1)* Air Quality Monitoring Concepts/114 (5 day) ☐ *(b2)* Advanced Continuous Emission Monitoring/222 (1 day) ☐ *(b3)* Observing Source Tests/224 (1 day) Rutgers/EOHSI ☐ *(c1)* Emission Monitoring & Testing Continuous Emission Monitoring-Level II (1day) ☐ *(c2)* Compliance Assurance Monitoring-Level IV (2 days) ☐ *(c3)* Source Sampling for Particulates-Level IV (4.5 days) MARAMA ☐ *(d)* Annual Workshop WESTAR ☐ *(e1)* $PM_{2.5}$ Monitoring Methods Workshop ☐ *(e2)* $PM_{2.5}$ Monitoring Regulations Other ☐ *(f)* (Provider/course)
☐ *(g)* No provider/course preference	
☐ **VOC Sampling and Analysis** *(11)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Sources and Control of Volatile Organics/482 (4 days) California Air Resources Board (CARB) ☐ *(b1)* Metal Parts and Products/230 (1 day) ☐ *(b2)* Aerospace Industry/230 1 (1 day) ☐ *(b3)* Auto Refinishing/230.2 (1 day) ☐ *(b4)* Metal Container, Closure and Coil Coating/230 3 (1 day) ☐ *(b5)* Graphic Arts/230 4 (1 day) ☐ *(b6)* Fugitive VOCs/262 (1 day) ☐ *(b7)* VOC Control Devices/Scrubbers/284 (1 day) Rutgers/EOHSI ☐ *(c1)* Emission Monitoring and Testing VOC Sampling and Analysis-Level II ☐ *(c2)* General VOC Source Regulation and Inspection-Level III) Other ☐ *(d)* (Provider/course)
☐ *(e)* No provider/course preference	
☐ **Combustion Evaluation** *(12)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Combustion Evaluation/427 (4 5 days) California Air Resources Board (CARB) ☐ *(b)* Stationary Internal Combustion Engines/271 (1 day) Rutgers/EOHSI ☐ *(c)* Combustion Source Inspection-Level II (3 days) Other ☐ *(d)* (Provider/course)
☐ *(e)* No provider/course preference	

Topic (from Question 5A)	Providers and Courses/Course Numbers
☐ **Visible Emission Enforcement** *(13)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* VEE Instructors Workshop (3 5 days) California Air Resources Board (CARB) ☐ *(b1)* Recertification in VEE/100.1 (1 day) ☐ *(b2)* Night Certification in VEE/100.2 (5 day) Rutgers/EOHSI ☐ *(c)* Visible Emission Enforcement Training and Certification (3 days) Other ☐ *(e)* No provider/course preference ☐ *(d)* (Provider/course).
☐ **Analytical Methods** *(14)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Analytical Methods for Air Quality Standards/464 (5 days) Other ☐ *(c)* No provider/course preference ☐ *(b)* (Provider/course)
☐ **Quality Assurance** *(15)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Quality Assurance for Air Pollution Measurement Systems/470 (4 days) Other ☐ *(c)* No provider/course preference ☐ *(b)* (Provider/course)
☐ **NESHAPS** *(16)*	California Air Resources Board (CARB) ☐ *(a)* Asbestos D/R/251 (1 day) Other ☐ *(c)* No provider/course preference ☐ *(b)* (Provider/course)
☐ **Enforcement Fundamentals** *(17)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Air Pollution Field Enforcement/444 (3 5 days) California Air Resources Board (CARB) ☐ *(b)* Fundamentals of Enforcement/100 (3 days) National Enforcement Training Institute (NETI) ☐ *(c)* Basic Environmental Enforcement (3 days) Other ☐ *(e)* No provider/course preference ☐ *(d)* (Provider/course)
☐ **Advanced Enforcement** *(18)*	California Air Resources Board (CARB) ☐ *(a)* Symposium/300 (4 days) EPA/National Enforcement Training Institute (NETI) ☐ *(b)* Field Citations/AIR 204 (1 day) Other ☐ *(d)* No provider/course preference ☐ *(c)* (Provider/course)

Topic (from Question 5A)	Providers and Courses/Course Numbers
☐ **Multi-Media Enforcement** *(19)*	California Air Resources Board (CARB) ☐ *(a)* Symposium/300 (4 days) EPA/National Enforcement Training Institute (NETI) ☐ *(b1)* Multi-Media Inspections/MLS 102 (? days) ☐ *(b2)* Multi-Media Training for Regulators/MLS 103 (3 days) ☐ *(b3)* Advanced Multi-Media Course for Regulators/MLS 202 (3 days) Other ☐ *(c)* (Provider/course) ☐ *(d)* No provider/course preference
☐ **Enforcement Case Development** *(20)*	California Air Resources Board (CARB) ☐ *(a)* Mutual Settlement Workshop/350 (1 day) EPA/National Enforcement Training Institute (NETI) ☐ *(b01)* Interviewing Techniques for Regulators/CST 111 (1 day) ☐ *(b02)* Interviewing and Interrogation Techniques/CST 210 (3 days) ☐ *(b03)* Negotiation Skills/CST 113 (2 days) ☐ *(b04)* Advanced Negotiation Skills/CST 204 (2 days) ☐ *(b05)* Administrative Enforcement and Case Development/CST 115 (3 days) ☐ *(b06)* Administrative Hearings and Trials/CST 207 (1 day) ☐ *(b07)* Advanced Administrative Practice/CST 302 (2 days) ☐ *(b08)* ABEL/CST 101 (1 day) ☐ *(b09)* BEN/CST 103 (1 day) ☐ *(b10)* Financial Analysis/CST 118 (3 days) ☐ *(b11)* Intermediate Ability to Pay/CST 201 (? days) ☐ *(b12)* Financial Analysts Workshop/CST 203 (3 days) ☐ *(b13)* Pleading and Litigating Civil Penalties/CST 303 (4 5 days) ☐ *(b14)* MUNIPAY/CST 305 (1 day) ☐ *(b15)* INDIPAY/CST 306 (1 day) Other ☐ *(c)* (Provider/course) ☐ *(d)* No provider/course preference
☐ **Criminal Enforcement** *(21)*	EPA/National Enforcement Training Institute (NETI) ☐ *(a1)* Basic Criminal Environmental Investigations/CRM 105 (5 days) ☐ *(a2)* Basic Environmental Enforcement Training/CRM 106 (4 days) ☐ *(a3)* Basic Environmental Investigations Training/CRM 108 (3 days) ☐ *(a4)* Basic Environmental Investigations Training/CRM 113 (4 days) Other ☐ *(b)* (Provider/course). ☐ *(c)* No provider/course preference
☐ **Permitting-Basic** *(22)*	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Introduction to Permits/460 (5 days) Other ☐ *(b)* (Provider/course) ☐ *(c)* No provider/course preference

Topic (from Question 5A)	Providers and Courses/Course Numbers
☐ **Permitting-Intermediate** *(23)* ☐ *(e)* No provider/course preference	EPA/Air Pollution Training Institute (APTI) ☐ *(a)* Intermediate Permitting/461 (5 days) Rutgers/EOHSI ☐ *(b)* Air Permitting: A Technical Approach-Level III (2 days) WESTAR ☐ *(c)* Operating Permits-NSR/PSD (3 days) Other ☐ *(d)* (Provider/course)
☐ **Title V Operating Permits** *(24)* ☐ *(c)* No provider/course preference	WESTAR ☐ *(a)* Advanced Operating Permits (3 days) Other ☐ *(b)* (Provider/course)
☐ **Emissions Inventory** *(25)*	*No choices available*
☐ **Data Management and Reporting** *(26)* ☐ *(c)* No provider/course preference	EPA/National Enforcement Training Institute (NETI) ☐ *(a1)* AIRS Input and Reporting/AIR 103 (3 days) ☐ *(a2)* ACTS/NARS Training/AIR 104 (2 days) ☐ *(a3)* IDEA Basic Training/IMS 102 (1 day) ☐ *(a4)* IDEA WIN for the New User/IMS 193 (? days) ☐ *(a5)* DOCKET/Case Conclusion Data Sheets/IMS 104 (? days) ☐ *(a6)* IDEA Advanced Training/IMS 202 (.5 day) Other ☐ *(b)* (Provider/course).
☐ **Supplemental Environmental Projects (SEP)** *(27)* ☐ *(c)* No provider/course preference	EPA/National Enforcement Training Institute (NETI) ☐ *(a1)* SEP Policy Training/CST 107 (1 day) ☐ *(a2)* PROJECT-SEP Training/CST 205 (5 day) Other ☐ *(b)* (Provider/course).
☐ **Pollution Prevention** *(28)* ☐ *(d)* No provider/course preference	EPA/National Enforcement Training Institute (NETI) ☐ *(a)* Pollution Prevention for Enforcement and Compliance Officers/CPA 103 (2 days) WESTAR ☐ *(b)* Pollution Prevention in Permitting (3 days) Other ☐ *(c)* (Provider/course)
☐ **Gasoline Distribution and Marketing** *(29)* ☐ *(c)* No provider/course preference	California Air Resources Board (CARB) ☐ *(a1)* Gasoline Cargo Tanks/210 (1 day) ☐ *(a2)* Gasoline Facilities Phase I and II/263 (1 day) ☐ *(a3)* Oil Field Production/260 (1 day) ☐ *(a4)* Air to Liquid Ratio Testing/264 (1 day) ☐ *(a5)* Petroleum Refining/288 (1 day) Other ☐ *(b)* (Provider/course)

Please return to Question 6.

Air Compliance Inspector
Basic Training Program Questionnaire

Air Compliance Inspector Basic Training Program Questionnaire

EPA Order 3500.1, June 29, 1988, established an EPA agency-wide training program for environmental compliance and field inspectors. The order requires that EPA regional and headquarters inspectors meet minimum training criteria prior to conducting facility inspections. Minimum training curricula include Occupational Health and Safety, Basic Inspector Curriculum, and Program Specific Curriculum. Since 1988, EPA has been developing and delivering training relative to Order 3500.1 in cooperation with state and local agencies. Many state/local inspectors have attended these courses.

Although the order is voluntary for state/local agency inspectors, and does not specifically establish training criteria for them, it could form the basis for state/local training programs. State and local agency inspectors conduct the majority of compliance inspections, and therefore would benefit a great deal from similar formalized training. EPA/Stationary Source Compliance Division (SSCD) in coordination with EPA Region V, Ohio EPA, and the Ohio Regional Air Pollution Control Agencies (RAPCA) are conducting a program development demonstration project in which state and local agency inspectors will be trained specific to their needs.

The purpose of this questionnaire is to establish a baseline for the inspector training programs currently available to Ohio EPA and RAPCA personnel and to identify the basic level training needs of these agencies. In responding to this survey, please answer each question as it best represents your agency. Answers should be kept simple and should not require research or a significant amount of time. The results will be summarized and reported back to you.

Questions concerning this questionnaire can be forwarded to Bruno Maier at the Ohio Regional Air Pollution Control Agency in Dayton, Ohio at 513-225-4795, fax number 513-225-3486 Completed questionnaires should be sent to Bruno at the following address: RAPCA, 451 W. 3rd Street, Dayton, OH 45422

Agency Profile

Survey completed by (name): _____
Title: _____
Phone Number: _____
Fax Number: _____

1 How many people does your agency employ (i.e., FTE's)? _____

2. How many inspectors do you have? _____

What percentage of these inspectors would you categorize as:

New (< 1 year experience) _____ Experienced _____

3. Does your agency have required training (please circle)? Yes No

4. Does you agency have a training program (please circle)? Yes No

Course Information

5. Please Rank the following training courses as 1 = high priority; 2 = medium; 3 = low; or NA - not available.

CARB Courses

100	Fundamentals of Enforcement	___
101.	History of Air pollution Control	___
102	Climatology and Meteorology	___
103	Classification of Air Pollutants	___
104	Inspector Safety	___
105.	Concepts of Regulatory Development	___
106	Investigative and Report Writing Techniques	___
107.	Basic Air Pollution Control Equipment	___
108	Introduction to Visible Emissions Evaluations	___
109	Complaint Response Procedures	___
110	Sample Gathering and Integrity	___
111.	Basic Chemistry of Air Pollution	___
112.	Evolution of Environmental Law	___
113	Inspector Conduct and Liability	___
114.	Air Quality Monitoring Concepts	___
115	Interfacing with Related Agencies	___

EPA/Rutgers

1	Fundamentals of Environmental Compliance Inspections	___
2	Basic Health and Safety for Field Activities	___
3.	Respiratory Protection and Use of Safety Equipment	___
4	Principles and Practice of Air Pollution Control	___
5	Basic Source Inspection	___
6	Emission Capture and Gas Handling System Inspection	___
7	Emission Monitoring and Testing Series Source Sampling Source Sampling and Analysis	___
8	Emission Monitoring and Testing Series· Continuous Emissions Monitoring Systems	___
9	Emission Monitoring and Testing Series. VOC Sampling and Analysis	___
10	Visible Emission Enforcement Training and Certification	___
11	Combustion Source Inspection	___
12	Asbestos NESHAP Demolition and Renovation Inspection Procedures Workshop	___
13	General VOC Source Regulation and Inspection - Part I	___
14	VOC Fugitive Emission Source and Benzene Process - Part II	___

Miscellaneous

1	Air Toxics-Basic	___
2.	SIP Development	___
3	Control Measures O3. CO and NO_x - Basic	___
4	Advanced Inspection	___
5	Enforcement and Case Development - Basic	___
6	Clean Air Act Update	___

Delivery and Availability

6. For this basic training, would you have any objections to being trained with industry? Please explain

7. Please indicate the most significant roadblocks hindering your organization's use of government and private sponsored training courses? (Rank the following items, 1 is the most important).

A.	Lack of training funds	_____
B.	Lack of travel funds	_____
C.	Location of course	_____
D.	Content of course	_____
E.	Quality of instruction	_____
F.	Length of course	_____
G.	Scheduling	_____
H.	Updates needed for current courses	_____
I.	Other, please specify:	

Resources

8. What sources are available to meet your training's funding needs? (Check all sources; rank the top 3)

		Now	Future
A.	Cooperative federal funding	_____	_____
B.	Other state/local operating funds	_____	_____
C.	Tuition/User fees	_____	_____
D.	Permit fees	_____	_____
E.	Penalties	_____	_____
F.	105 Grants	_____	_____
G.	Federal tuition-free (no cost) courses	_____	_____
H.	Other, please specify:	_____	_____

Additional (attach a seperate sheet, if necessary)

9. What key recommendations would you make to EPA to improve their efforts to provide comprehensive basic air quality training?

10. Is there any other information or comments you would like to provide for this baseline survey for basic level training?

11. If the training were held March 15-18 and/or March 29-April 14 in Dayton, OH would your organization participate?

Follow-up - To be answered at a later date.

12. Did training meet your objectives?

13. What aspects of the course(s) would you like to highlight for future training?

14. What aspects would you like to see improved in future training?

15. What would you recommend as the next step in this state/local training program development demonstration project?

Training Needs Questionnaire

Training Needs Questionnaire
Michigan Department of Natural Resources, Air Quality Division

The Air Quality Division of Michigan's Department of Natural Resources is gathering information on the training and experience of staff to assist in planning future training programs. Your response to these questions will enable us to develop training programs that truly meet your needs. This form is designed for staff who were hired before October 1, 1992--a different version was designed for staff hired after that date. If you have received the incorrect form, please contact Rebecca Patrick (517) 335-6984.

Please send the completed form no later than September 10 to:

Rebecca M. Patrick, Air Quality Division
P.O. Box 30028
Lansing, Michigan 48909.

Thank you for your cooperation

Training Needs

What types of training are you most interested in receiving in the future?

Intermediate or Advanced Compliance Inspection Courses in.

- ☐ Visible Emission Enforcement/Certification
- ☐ Source Sampling and Analysis
- ☐ Continuous Emissions Monitoring Systems
- ☐ VOC Sampling and Analysis
- ☐ Combustion Source Inspection
- ☐ Asbestos NESHAP Demolition and Renovation Inspection Procedures
- ☐ General VOC Source Regulation and Inspection
- ☐ VOC Fugitive Emission Source and Benzene Process
- ☐ Specific Industrial Process Controls/Inspection (specify)_____
- ☐ Other_____

Courses in·

- ☐ Basic Health and Safety
- ☐ Advanced Health and Safety
- ☐ Case Development
- ☐ Pollution Prevention
- ☐ Other_____

Training Needs Assessment Methodology and Instruments

OBJECTIVES

Objectives of the Needs Assessment

1. To develop lists of skills that are required to perform selected technical job functional categories.

2. To identify current training needs and priorities, including the basis or reason for these needs.

3. To provide information on identified training needs that is sufficient for overall program and specific course planning (e.g., specific topics, levels of difficulty, numbers of staff, location of staff, etc.).

4. To develop a process and data collection instruments that can be used by the Technical Training Academy to update training requirements in the future.

5. To develop a process and data collection instruments that can by used by the Technical Training Academy to conduct needs assessments in other program areas (e.g., water, hazardous waste, etc.).

The needs assessment will be designed to answer the following questions:

1. What types of technical training are currently needed by what types and how many staff? Where are these staff located?

2. What problems in air pollution control have been identified that have training solutions?

3. What anticipated changes in the air pollution control program or changes in the composition of the regulated community will create future training needs?

4. What resources are available to meet these needs? What types of training resources are most appropriate and cost-effective to meet the identified needs?

PRELIMINARY REPORT OUTLINE

1. Executive Summary

2. Methodology

3. Findings

   a. Skills Inventory

   b. Problem Identification (training related and non-training related)

   c. Perceived Training Needs and Priorities (including rationale for need)

   d. Training Currently Provided/Available

4. Conclusions

   a. Training Needs by Division and Section (including priorities, number of staff, location of staff)

      - Current Needs
      - Projected Future Needs

   b. Training Needs by Region (including priorities, number of staff, location of staff)

      - Current Needs
      - Projected Future Needs

   c. Potential Resources to Meet Needs

      - EPA/APTI/CARB/Rutgers
      - Universities
      - Private Providers

Appendices

A. Data Collection Instruments

DATA COLLECTION APPROACH

There are three distinct components in the data collection approach. They are:

1. Study Population Definition
2. Skills Inventory
3. Needs Assessment Survey

Study Population Definition

The first step in the needs assessment is the definition of the study population. Tasks and subtasks include the following:

1. Select Divisions and Sections for inclusion in the study.
2. Define functional job titles to be included in the inventory and needs assessment, based on discussions with Division Managers and Section Managers.

Skills Inventory

Data collection for the skills inventory will include the following tasks and subtasks:

1. Obtain written position descriptions, performance appraisal forms, and other materials that relate to the functional job titles included in the study.
2. Review written materials and extract data on skills.
3. Prepare draft skills inventory based on written materials.
4. Circulate draft skills inventory to Section Managers and Regional Air Program Managers during interviews for review.
5. Based on comments received from step 4, revise skills inventory and distribute.

Needs Assessment Surveys

The needs assessment survey will include the following sources and will use the methods indicated with each source:

Source and Number		Method
Division Managers	( )	Individual interview
Section Managers	( )	Individual interview Follow-up focus group (?)
Individual Staff	( )	Written questionnaire Selected interviews (?)
Regional Air Program Managers	( )	Telephone interview
Regional Field Staff	( )	Telephone interview
Industry Associations	( )	Individual interview
TOTAL RESPONDENTS	( )	

The following pages describe each of these data collection efforts and provide draft data collection instruments.

DIVISION MANAGERS

Number of Respondents:

Selected Respondents:

Objectives:

- Obtain information on problems that might have technical training solutions.
- Obtain information on anticipated changes in staffing levels or distribution (organization), regulations, equipment, regulated community, etc. that could create training needs.
- Obtain their perceptions of highest priority technical training needs.
- Encourage top-level support for technical training efforts.
- Develop top-level interest in on-going training needs assessment process and willingness to participate in annual or semi-annual update.

Method:

- Face-to-face interview, using interview guide, by outside consultant. Interviews should require 15-30 minutes.
- Interviews will be conducted with all Division Managers included in the study.
- Send a letter in advance of the interview that describes the purpose of the interview and how the information will be used, and lists the questions that will be discussed during the interview.

SECTION MANAGERS

Number of Respondents:

Selected Respondents:

Objectives of Interviews:

- Review/check draft functional job descriptions and skills inventory for staff under their purview.
- Obtain information on problems that might have technical training solutions.
- Obtain information on anticipated changes in staffing levels or distribution (organization), regulations, equipment, regulated community, etc. that could create training needs.
- Obtain their perceptions of highest priority technical training needs.
- Obtain their perceptions of barriers and impediments to training for their staff.
- Obtain their opinions on the most effective training formats for their staff and the needs they have identified.
- Encourage support for technical training efforts.
- Develop interest in on-going training needs assessment process and willingness to participate in annual or semi-annual update.

Method:

- Face-to-face interview, using interview guide, by outside consultant. Interviews should require 45-60 minutes.
- Interviews will be conducted with all Section Managers included in the study.
- Once information from interviews has been summarized, a focus group may be convened to discuss and refine the findings and conclusions.

INDIVIDUAL STAFF

Number of Respondents:

Selected Functional Job Titles:

Objectives:

- Review/check draft functional job description and skills inventory for their position.
- Obtain their perceptions of their own technical training needs.
- Obtain information on problems they encounter in their jobs that might have training solutions.
- Obtain their opinions on preferred methods/formats for receiving training.

Method:

- Written questionnaire to a sample of individuals in selected functional job categories. Written or telephone follow up to non-respondents will be performed to obtain an adequate response for each section or regional office. Telephone follow up may be necessary to clarify responses.
- Samples will be developed in cooperation with Section Managers.

REGIONAL SUPERVISORS

Number of Respondents:

Selected Regional Supervisors:

- Air Program Managers in Regions _____
- _____ in Region 12, Houston

Objectives:

- Review/check draft functional job descriptions and skills inventory for staff under their purview.
- Obtain information on problems that might have technical training solutions, identifying those that might be particular to their region.
- Obtain information on anticipated changes in staffing levels or distribution (organization), regulations, equipment, regulated community, etc. that could create training needs.
- Obtain their perceptions of highest priority technical training needs.
- Obtain their perceptions of barriers and impediments to training for their staff.
- Obtain their opinions on the most effective training formats for their staff and the needs they have identified.
- Encourage support for technical training efforts.
- Develop interest in on-going training needs assessment process and willingness to participate in annual or semi-annual update.

Method:

- Telephone interview, using interview guide, by outside consultant. Interviews should require 20-30 minutes.
- A sample of Air Program Managers will be drawn by Field Operations, combining regions that are similar and/or have only one or two staff.
- Introduce study to this group at their September 15 meeting in Austin. Give them list of questions for telephone interviews and questions for field staff for review.

INDIVIDUAL FIELD STAFF

Number of respondents:

Selected Functional Job Titles:

Field Inspectors
Monitoring Technicians
Stack Samplers
I&M Supervisors
Employee Trip Reduction Program Staff (Houston)

Objectives:

- Review/check draft functional job description and skills inventory for their position.
- Obtain their perceptions of their own technical training needs.
- Obtain information on problems they encounter in their jobs that might have training solutions.
- Obtain their opinions on preferred methods/formats for receiving training.

Method:

- Telephone interviews with a sample of senior field staff to be identified by Field Operations. Interviews should require approximately 15 minutes.

INDUSTRY ASSOCIATIONS

Number of Respondents: maximum of 3

Selected Associations:

Objectives:

- Obtain their perceptions of strengths and weaknesses of TNRCC air pollution control staff in terms of job performance.

- Obtain their perceptions of problems their member companies encounter in dealing with TNRCC air pollution control staff that might have training solutions.

Method:

- Face-to-face interviews, using interview guide, by outside consultant. Interviews should require approximately 30 minutes.

- Approximately one month prior to interviews, respondents will be sent a letter outlining the objectives of the interview to allow them to poll their membership if desired.

DATA COLLECTION INSTRUMENTS

Three types of data collection instruments have been developed for this project:

Interview guides for face-to-face interviews

Interview guides for telephone interviews

Written questionnaire

The following data collection instruments are included in this section:

Division Manager Interview Guide

Section Manager Interview Guide

Headquarters Staff Questionnaire

Regional Air Program Managers Telephone Interview Guide

Regional Field Staff Telephone Interview Guide

Industry Associations Interview Guide

DIVISION MANAGERS
INTERVIEW GUIDE

Introduce yourself, your affiliation, your relationship to TNRCC. Provide overview of the interview
Estimated time: 15-30 minutes.
Objectives: obtain their perspective on training needs for air pollution control staff and how training might improve agency performance.

Discussion Questions:

1. What do the staff in your division do particularly well, their strengths? Do they bring these skills to their jobs or is this the result of training?

2. What problems do the staff in your division encounter in performing their jobs? Have you heard any complaints about their performance in any areas?

   Probe for specifics.

3. Are there any specific areas in which you think staff need training now? Have you identified appropriate training resources/providers to meet these needs? What are they?

   Probe for specifics.

4. What changes do you see in the future that might require additional training for staff?

   Probe for changes in
   - *laws/regulations (Federal and state),*
   - *purchase and/or use of new equipment (field, office, laboratory),*
   - *advances in industry processes or technology,*
   - *changes in the regulated community (new industry, new products in existing industry),*
   - *changes in staffing levels or organization.*

5. (Quickly summarize the training needs identified in questions 2, 3, and 4.) Among these potential training needs that you have identified, which ones are highest priority?

   - *Create a list of specific needs identified.*
   - *Identify those needs that are "technical training needs."*
   - *Separate the list of technical training needs into current needs and anticipated future needs.*
   - *Ask the respondent to rate them as (1) highest priority, (2) important, and (3) useful but not critical at this time.*

6. Is there anything you would like to tell me about training, training needs, and staff performance that I have not asked?

Conclude the interview by thanking the respondent and outlining the next steps in the needs assessment.

A draft report will be circulate for review _____. Would they be interested in reviewing it?

The final report will be available _____. Would they like to receive a copy?

SECTION MANAGERS
INTERVIEW GUIDE

Introduce yourself, your affiliation, your relationship to TNRCC.
Provide overview of the interview
Estimated time: 45-60 minutes.
Objectives: obtain their perspective on training needs for air pollution control staff and how training might improve agency performance.

Discussion Questions:

1. Please review the draft job function descriptions and let us know if they are complete and accurate.

   Ask them to review the descriptions during the interview period if possible. Otherwise, ask them to return comments as soon as possible and set a mutually agreeable deadline.

2. What do the staff in your section do particularly well, their strengths? Do they bring these skills to their jobs or is this the result of training?

3. Is any training offered routinely to staff in your section or required of all staff (e.g., orientation for new employees)? If yes, describe courses and providers.

4. What problems do the staff in your section encounter in performing their jobs? Have you heard any complaints about their performance in any areas?

   Probe for specifics.

5. Are there any specific areas in which you think staff need training now? Have you identified appropriate training resources/providers to meet these needs? What are they?

6. What changes do you see in the future that might require additional training for staff?

   Probe for changes in
   - *laws/regulations (Federal and state),*
   - *purchase and/or use of new equipment (field, office, laboratory),*
   - *advances in industry processes or technology,*
   - *changes in the regulated community (new industry, new products in existing industry),*
   - *changes in staffing levels or organization.*

7. *(Quickly summarize the training needs identified in questions 2, 3, and 4.)* Among these potential training needs that you have identified, which ones are highest priority?

   - *Create a list of specific needs identified.*
   - *Identify those needs that are "technical training needs."*
   - *Separate the list of technical training needs into current needs and anticipated future needs.*
   - *Ask the respondent to rate them as (1) highest priority, (2) important, and (3) useful but not critical at this time.*

8. What approaches, formats, methods do you think would be most appropriate and cost-effective for meeting each of the needs rated 1 or 2 above? Note specific courses mentioned.

   Ask specifically about classroom training, self-study, computer-based or computer assisted, videotapes, interactive videoconferences.

9. What barriers or impediments do you encounter in obtaining training for your staff?

   Probe for items beyond dollars--such as time away from the office, out-of-state travel restrictions, video or computer equipment required, scheduling of available courses, etc.

10. Have any training programs been particularly effective for you or your staff in the past? What made the program(s) so effective?

11. Is there anything you would like to tell me about training, training needs, and staff performance that I have not asked?

Conclude the interview by thanking the respondent and outlining the next steps in the needs assessment.

A draft report will be circulate for review _____. Would they be interested in reviewing it?

The final report will be available _____. Would they like to receive a copy?

TNRCC AIR POLLUTION CONTROL STAFF
TRAINING NEEDS ASSESSMENT QUESTIONNAIRE

The Technical Training Academy of the TNRCC is conducting a survey to help us learn more about the types of training that air pollution control staff need to improve their effectiveness in their jobs.

Please fill out this form as completely and accurately as you can. If you have any questions about the survey or the questions on this form, please call _____ at _____.

1. Job Title/Position _____

   Division/Section/Location_____

2. What are your major job responsibilities?_____

   _____

   _____

3. How long have you been in this position?_____

   If less than 5 years, what was your previous job?_____

4. What problems have you encountered in performing your job?

   _____

   _____

5. What is your educational background (check highest level attained and indicate major subject)?

   _____ High School Graduate

   _____ Technical/Vocational School Graduate_____

   _____ Junior College/Community College Graduate_____

   _____ Undergraduate College/University Graduate_____

   _____ Graduate College/University Degree_____

   _____ Other (describe)_____

6. What training have you received for your current job (classroom, self-study, video, on-the-job)?

Course or Topic	Training Provider
_____	_____
_____	_____
_____	_____

7. What other training have your received that has been valuable to you in this job (classroom, self-study, video, on-the-job)?

Course or Topic	Training Provider
_____	_____
_____	_____
_____	_____

8. What types of training would help you perform your job better? How important is this need?

Topic	Very Important	Important	Useful
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

9. For each of the topics listed in question 8, how would you prefer to receive the training (classroom, self-study, video, on-the-job, etc)?

Topic	Classroom	SelfStudy	Video	On-the-Job
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

10. Are there any other comments you would like to make concerning your interests in training?

_____

_____

REGIONAL AIR PROGRAM MANAGERS
TELEPHONE INTERVIEW GUIDE

Introduce yourself, your affiliation, your relationship to TNRCC. Provide overview of the interview

Estimated time: 20-30 minutes.

Objectives: obtain their perspective on training needs for air pollution control staff and how training might improve agency performance.

Discussion Questions:

1. What are the major industries in your region? Is the regulated community fairly stable? Are there any new industries?

2. What are the major air pollution problems in your region?

3. What do the air pollution control staff in your region do particularly well, their strengths? Do they bring these skills to their jobs or is this the result of training?

4. Is any training offered routinely to staff in your region or required of all staff (e.g., orientation for new employees)? If yes, please describe courses and providers.

5. What problems do the staff in your region encounter in performing their jobs? Have you heard any complaints about their performance in any areas?

   Probe for specifics.

6. Are there any specific areas in which you think staff need training now? Have you identified appropriate training resources/providers to meet these needs? What are they?

7. What changes do you see in the future that might require additional training for staff?

   Probe for changes in
   - *laws/regulations (Federal and state),*
   - *purchase and/or use of new equipment (field, office, laboratory),*
   - *advances in industry processes or technology,*
   - *changes in the regulated community (new industry, new products in existing industry),*
   - *changes in staffing levels or organization.*

8. *(Quickly summarize the training needs identified in questions 2, 3, and 4.)* Among these potential training needs that you have identified, which ones are highest priority?

- *Create a list of specific needs identified.*
- *Identify those needs that are "technical training needs."*
- *Separate the list of technical training needs into current needs and anticipated future needs.*
- *Ask the respondent to rate them as (1) highest priority, (2) important, and (3) useful but not critical at this time.*

9. What approaches, formats, methods do you think would be most appropriate and cost-effective for meeting each of the needs rated 1 or 2 above?

   Ask specifically about classroom training, self-study, computer-based or computer assisted, videotapes, interactive videoconferences.

10. What barriers or impediments do you encounter in obtaining training for your staff?

    Probe for items beyond dollars--such as time away from the office, out-of-state travel restrictions, video or computer equipment required, scheduling of available courses, etc.

11. Have any training programs been particularly effective for you or your staff in the past? What made the program(s) so effective?

12. Is there anything you would like to tell me about training, training needs, and staff performance that I have not asked?

Conclude the interview by thanking the respondent and outlining the next steps in the needs assessment.

A draft report will be circulate for review _____. Would they be interested in reviewing it?

The final report will be available _____. Would they like to receive a copy?

REGIONAL FIELD STAFF
TELEPHONE INTERVIEW GUIDE

Introduce yourself, your affiliation, your relationship to TNRCC. Provide overview of the interview
Estimated time: 15 minutes.
Objectives: obtain their perspective on training needs for air pollution control staff and how training might improve agency performance.

1. Job Title/Position

   Division/Section/Location

2. What are your major job responsibilities?

3. How long have you been in this position?

   If less than 5 years, what was your previous job?

4. What problems have you encountered in performing your job?

5. What is your educational background (check highest level attained and indicate major subject)?

6. What training have you received for your current job (classroom, self-study, video, on-the-job)? Who provided this training?

7. What other training have your received that has been valuable to you in this job (classroom, self-study, video, on-the-job)? Who provided this training?

8. What types of training would help you perform your job better? How important is this need?

9. For each of the topics listed in question 8, how would you prefer to receive the training (classroom, self-study, video, on-the-job, etc)?

10. Are there any other comments you would like to make concerning your interests in training?

INDUSTRY ASSOCIATIONS
INTERVIEW GUIDE

Introduce yourself, your affiliation, your relationship to TNRCC.
Provide overview of the interview
Estimated time: 30 minutes.
Objectives: obtain their perspective on the strengths and weaknesses in air pollution control staff and how training might improve agency performance.

Discussion Questions:

1. What types of interactions do your association and your member companies have with TNRCC air pollution control staff (e.g., compliance inspections, reg development, public hearings)?

2. What do you think the strengths of the TNRCC air pollution control staff are?

3. What do you think the weaknesses of the TNRCC air pollution control staff are? In what areas are improvement needed?

4. What problems have you had in your interactions with TNRCC air pollution control personnel?

   At the conclusion of this discussion, note that some problems are training related and others are not. We will transmit all of our findings to TNRCC, but the training group is not in a position to cure all ills.

5. What changes do you foresee in your industry that might affect TNRCC air pollution control staff (e.g., process changes, new technologies, expansion or contraction)?

SAMPLE TABLE SHELLS/DATA DISPLAYS

1. Rationale for Training Needs

Need	New Staff	Response to Problem	New Rules/ Regulations	New Technology	New Equipment	New Industry

Cells of this table could contain simple check marks or brief explanation.

2. Training Needs by Region

Need / Region	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15

Cells of this table could contain simple check marks, the priority of the need within the region, or the number of staff within the region that have the need. The table will illustrate the needs that regions have in common and those needs that are particular to one or two regions. It will illustrate the geographic location and size of the potential audience for specific training programs.

3. Training Needs by Division/Section

	Section	Section	Section	Section	Section	Section	Section

As in table 2, cells of this table could contain simple check marks, the priority of the need within the section, or the number of staff within the section that have the need. The table will illustrate the needs that sections have in common and those needs that are particular to one or two sections. It will illustrate the geographic location and size of the potential audience for specific training programs.

Draft Needs Assessment for Personnel in Mexico

Draft

Needs Assessment

For

OAQPS/Education and Outreach Group
Government of Mexico
Universidad Autonoma Metropolitana

OBJECTIVES

Objectives of the Needs Assessment

1. To develop lists of skills that are required to perform selected technical job functional categories.

2. To identify current training needs and priorities, including the basis or reason for these needs.

3. To provide information on identified training needs that is sufficient for overall program and specific course planning (e.g., specific topics, levels of difficulty, numbers of staff, location of staff, etc.).

4. To develop a process and data collection instruments that can be used to assess needs in other parts of the country and to update training requirements in the future.

5. To develop a process and data collection instruments that can by used to conduct needs assessments in other program areas (e.g , water, hazardous waste, etc.).

The needs assessment will be designed to answer the following questions:

1. What types of training are currently needed by what types and how many staff? Where are these staff located?

2. What problems in air pollution control have been identified that have training solutions?

3. What anticipated changes in the air pollution control program or changes in the composition of the regulated community will create future training needs?

4. What resources are available to meet these needs? What types of training resources are most appropriate and cost-effective to meet the identified needs?

MANAGERS

Number of Respondents·

Selected Respondents:

Objectives:

- Obtain information on problems that might have training solutions.
- Obtain information on anticipated changes in staffing levels or distribution (organization), regulations, equipment, regulated community, etc. that could create training needs.
- Obtain their perceptions of highest priority training needs.
- Encourage top-level support for training efforts.

Method:

- Face-to-face interview, using interview guide. Interviews should require 15-30 minutes.
- Interviews will be conducted with all Managers included in the study
- Send a letter in advance of the interview that describes the purpose of the interview and how the information will be used, and lists the questions that will be discussed during the interview.

LINE SUPERVISORS

Number of Respondents:

Selected Respondents:

Objectives of Interviews:

- Gather information on functional job descriptions and skills inventory for staff under their purview
- Obtain information on problems that might have training solutions.
- Obtain information on anticipated changes in staffing levels or distribution (organization), regulations, equipment, regulated community, etc. that could create training needs.
- Obtain their perceptions of highest priority training needs.
- Obtain their perceptions of barriers and impediments to training for their staff.
- Obtain their opinions on the most effective training formats for their staff and the needs they have identified.
- Encourage support for training efforts.

Method.

- Face-to-face interview, using interview guide Interviews should require 45-60 minutes.
- Interviews will be conducted with all Supervisors included in the study.
- Once information from interviews has been summarized, a focus group may be convened to discuss and refine the findings and conclusions.

INDIVIDUAL STAFF

Number of Respondents:

Selected Functional Job Titles:

Objectives:

- Gather information on functional job description and skills inventory for their position
- Obtain their perceptions of their own training needs.
- Obtain information on problems they encounter in their jobs that might have training solutions.
- Obtain their opinions on preferred methods/formats for receiving training.

Method:

- Interview and written questionnaire to all or a sample of individuals in each functional job category. Written or telephone follow up to non-respondents will be performed to obtain an adequate response. Telephone follow up may be necessary to clarify responses.
- If used, samples will be developed in cooperation with Managers.

LINE SUPERVISORS: INTERVIEW GUIDE

Introduce yourself, your affiliation, and the project.
Provide overview of the interview

Estimated time: 45-60 minutes

Objectives: obtain their perspective on training needs for air pollution control staff and how training might improve agency performance.

Discussion Questions:

1. What are the job categories or positions that you supervise? What are the major functions performed by each of these positions or categories?

2. What do the staff in your section do particularly well, their strengths? Do they bring these skills to their jobs or is this the result of training?

3 Is any training offered routinely to staff in your section or required of all staff (e.g., orientation for new employees)? If yes, describe courses and providers.

4 What problems do the staff in your section encounter in performing their jobs? Have you heard any complaints about their performance in any areas?

Probe for specifics.

5. Are there any specific areas in which you think staff need training now? Have you identified appropriate training resources/providers to meet these needs? What are they?

6. What changes do you see in the future that might require additional training for staff?

Probe for changes in

- *laws/regulations,*
- *purchase and/or use of new equipment (field, office, laboratory),*
- *advances in industry processes or technology,*
- *changes in the regulated community (new industry, new products in existing industry),*
- *changes in staffing levels or organization.*

7. *(Quickly summarize the training needs identified in questions 2, 3, and 4.)* Among these potential training needs that you have identified, which ones are highest priority?

- *Create a list of specific training needs identified.*
- *Separate the list of training needs into current needs and anticipated future needs.*
- *Ask the respondent to rate them as (1) highest priority, (2) important, and (3) useful but not critical at this time.*

8. What approaches, formats, methods do you think would be most appropriate and cost-effective for meeting each of the needs rated 1 or 2 above? Note specific courses mentioned.

Ask specifically about classroom training, self-study, computer-based or computer assisted, videotapes, interactive videoconferences.

9 What barriers or impediments do you encounter in obtaining training for your staff?

Probe for items beyond dollars--such as time away from the office, out-of-state travel restrictions, video or computer equipment required, scheduling of available courses, etc.

10. Have any training programs been particularly effective for you or your staff in the past? What made the program(s) so effective?

11 Is there anything you would like to tell me about training, training needs, and staff performance that I have not asked?

Conclude the interview by thanking the respondent and outlining the next steps in the project.

AIR QUALITY MANAGERMENT STAFF
TRAINING NEEDS ASSESSMENT QUESTIONNAIRE

The Universidad Autonoma Metropolitana is conducting a survey in cooperation with SEDESOL to learn more about the types of training that air quality management staff need to improve their effectiveness in their jobs. Please fill out this form as completely and accurately as you can If you have any questions about the survey or the questions on this form, please call _____ at _____.

1. Job Title/Position _____

   Division/Section/Location_____

2. What are your major job responsibilities?_____

_____

_____

3. How long have you been in this position?_____

   If less than 5 years, what was your previous job?_____

4. What problems have you encountered in performing your job?

_____

_____

5. What is your educational background (check highest level attained and indicate major subject)?

   _____ High School Graduate

   _____ Technical/Vocational School Graduate_____

   _____ Junior College/Community College Graduate_____

   _____ Undergraduate College/University Graduate_____

   _____ Graduate College/University Degree_____

   _____ Other (describe)_____

6 What training have you received for your current job (classroom, self-study, video, on-the-job)?

Course or Topic	Training Provider
_____	_____
_____	_____
_____	_____

7. What other training have your received that has been valuable to you in this job (classroom, self-study, video, on-the-job)?

Course or Topic	Training Provider
_____	_____
_____	_____
_____	_____

8. What types of training would help you perform your job better? How important is this need?

Topic	Very Important	Important	Useful
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

9. For each of the topics listed in question 8, how would you prefer to receive the training (classroom, self-study, video, on-the-job, etc)?

Topic	Classroom	SelfStudy	Video	On-the-Job
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

10. Are there any other comments you would like to make concerning your interests in training?

_____

_____

INDIVIDUAL STAFF
INTERVIEW GUIDE

Introduce yourself, your affiliation, and the project
Provide overview of the interview

Estimated time: 30-60 minutes.
Objectives. obtain their perspective on training needs and how training might improve agency performance

1. Job Title/Position

   Division/Section/Location

2. What are your major job responsibilities?

3. How long have you been in this position?

   If less than 5 years, what was your previous job?

4. What problems have you encountered in performing your job?

5. What is your educational background (check highest level attained and indicate major subject)?

6 What training have you received for your current job (classroom, self-study, video, on-the-job)? Who provided this training?

7. What other training have your received that has been valuable to you in this job (classroom, self-study, video, on-the-job)? Who provided this training?

8. What types of training would help you perform your job better? How important is this need?

9 For each of the topics listed in question 8, how would you prefer to receive the training (classroom, self-study, video, on-the-job, etc)?

10. Are there any other comments you would like to make concerning your interests in training?

Participant Profile

PARTICIPANT PROFILE

Please complete the information below about your experience to help us design the course to better meet your needs. Your individual response will be kept confidential.

Name_____

Current Position (Title, Agency, City)_____

_____

Program Area

( ) Inspections ( ) Permits ( ) Enforcement

Number of Years in This Position

( ) Less than 1 year ( ) 1 to 3 years ( ) More than 3 years

Other Experience (if less than 3 years in current position)_____

_____

Education

( ) High School
( ) Technical/Vocational School
( ) College/University (Degree, specialization_____)
( ) Other_____

Approximately how many inspections have you participated in?

During your lifetime:	Last year:
( ) None	( ) None
( ) Fewer than 5	( ) Fewer than 5
( ) 5 to 20	( ) 5 to 20
( ) 20 or more	( ) 20 or more

Approximately how many inspections have you conducted solo or as team leader?

During your lifetime:	Last year:
( ) None	( ) None
( ) Fewer than 5	( ) Fewer than 5
( ) 5 to 20	( ) 5 to 20
( ) 20 or more	( ) 20 or more

How many of your inspections have led to cases?

( ) None ( ) Fewer than 5 ( ) 5 or more

How many of your inspections have gone to court?

( ) None ( ) Fewer than 5 ( ) 5 or more

What training courses have you attended to prepare you for conducting inspections, preparing reports, and performing related duties? (Check all that you have attended, specify provider of course and approximate length.)

Course		Provider/Length
( )	Orientation	_____
( )	Basic Health and Safety	_____
( )	Basic Inspection Techniques	_____
( )	Report Writing	_____
( )	Basic Sampling, Monitoring, Control Equipment	_____
( )	Complaint Response Procedures	_____
( )	Case Development	_____
( )	Advanced Inspection	_____
( )	_____	_____
( )	_____	_____
( )	_____	_____

Please describe any self-study or on-the-job training you have received._____

_____

_____

_____

What types of training are you most interested in receiving in the future?_____

_____

_____

What is your main purpose or objective for taking this course?_____

_____

_____

Training Plans

Section B

Staff Development Plans

Table of Contents
Staff Development Plan Resources

Overview of Staff Development Plans ..... Page B1

STAPPA/ALAPCO Training Curriculum ..... Page B5

This plan includes lists of training topics (and providers of this training in some cases) for 8 job categories: program administration/program management, secretarial, administrative enforcement, civil (court) enforcement, management information systems, meteorology, air modeling, ambient monitoring, air toxics, and air permitting.

Training Support to Career Ladders (TNRCC) ..... Page B51

The Texas Natural Resource Conservation Commission has undertaken a major effort to develop career ladders that include skills inventories and training needs analyses, with identification of applicable courses and course providers where available. Gaps are identified as areas in which the Technical Training Academy might need to develop a course. TNRCC has developed 15 career ladders to date.

California Air Resources Board Health, Safety, and Training Checklist ..... Page B263

This concise checklist provides new employees in the Compliance Division with a list of requirements they must fulfill.

Pennsylvania Long-Term Training Plan ..... Page B271

This plan provides guidelines for new employees, technical training, supervisory training, career development, and secretarial training. It includes central office and regional office employees. It lists course requirements for each division, including Compliance and Enforcement, Air Resource Management, Air Quality Monitoring, Source Testing and Monitoring, Permits, and Regional Offices. It then provides training plans for regional office entry level positions (environmental trainee, air pollution control engineer I, and environmental chemist I) and central office entry level positions by division (environmental trainee, air pollution control engineer I, environmental chemist I, air pollution meteorologist I, and air monitoring equipment specialist). These plans include skill and knowledge objectives, on-the-job training, in-service training, and outside training courses.

Hillsborough County (Florida) Training Plan ..... Page B371

This plan lists training required or desired, resources permitting, for 23 functions, including in-house training, informal training, and formal training. The plan includes the following positions: director/air management division, executive secretary, senior secretary, enforcement and operational support supervisor, enforcement specialist,

operational support specialist, assistant director/air engineering department, air toxics engineer, asbestos inspector, air permit specialist, air permit engineer, air compliance specialist, air compliance engineer, assistant director/technical air operations department, field investigation/mobile source control supervisor, mobile source control/transportation specialist, field investigation qualification, data handling/data quality control technician, noise pollution control specialist, chief/air monitoring section, air monitoring field operations supervisor, and continuous monitoring/electronic technician.

Air Pollution Training Institute Curriculum Guide . . . . . Page B439

APTI's curriculum guide provides a logical progression of specific courses for several functional areas: engineering and enforcement, sampling and analysis, meteorology and modeling, air quality management, mobile sources, hazardous wastes, and air toxics.

Staff Development Plans

Importance of Staff Development Plans

Staff development plans, which we are using as a broad term to encompass training plans and career ladders as well, are an important management tool for state and local agencies. These plans represent a long-term commitment on the part of management and the employee to a program of training and other activities that will assist the employee in obtaining the skills and knowledge needed to perform current duties and will also prepare the individual for a future in the program.

There is a continuing need for staff development in state and local agencies, as new staff are hired, staff are transferred from other programs, regulations change, and new programs are created. Some staff development needs can be predicted, based on the requirements of a position; others arise as changes occur.

Staff development can include formal training, through classroom courses, self-study, satellite courses, and computer-based courses; attending professional meetings; and on-the-job training and mentoring. At each stage of an employee's career, the appropriate mix of staff development resources might be different.

Two Types of Staff Development Plans

There are two broad types of staff development plans: "generic" plans for specific jobs, positions, or duties and individual plans for each employee. These two types of plans are complementary, in that it is much easier to plan for individual employee development if there is a generic plan that can serve as a reference.

Tools for Trainers has gathered generic plans from several state and local agencies. Most of these plans identify specific courses, often identifying the suggested provider as well, that should be completed by employees in specific positions. The approach developed by the Texas Natural Resource Conservation Commission takes the extra step of explicitly defining skills required for each position and then identifying courses that are designed to address these skill areas.

Preparing Staff Development Plans

Staff development and staff development planning are *processes*; staff development plans are living documents. The planning process is a collaboration between the supervisor and the employee that can include the following steps:

- Assessment of the employee's immediate needs for the job at hand (current skills and knowledge compared to skills and knowledge needed for the position)— if your agency has a generic staff development or training plan for the position, this assessment is much easier since the required skills and knowledge (or required course prerequisites) will be described.

- Identification of potential resources to meet the needs identified.

- Development of a continuing plan for updating the employee's skills and knowledge and expanding skills and knowledge in new areas.

Generic staff development plans and individual staff development plans should be updated frequently to reflect the changing environment in which agency staff work. New regulations, new technology, new industry moving into the state, and other factors can indicate the need for changes. Information from needs assessments can be used to update the plan and evaluation of training courses can be used to update provider suggestions in the plan.

STAPPA/ALAPCO
Training Curriculum

STAPPA/ALAPCO
ON-THE-JOB
TRAINING CURRICULUM

FUNCTIONAL JOB CATEGORIES

Program Administration/Program Management
Secretary
Meteorology/Air Modeling
Ambient Monitoring
Data Processing
Administrative Enforcement
Civil (Court) Enforcement
Air Compliance Stationary Sources
Air Compliance Mobile Sources
Air Toxics
Air Permitting

ON-THE-JOB TRAINING PLAN
FOR
PROGRAM ADMINISTRATION/PROGRAM MANAGEMENT

NAME: _____

JOB CLASSIFICATION: _____

FORMAL EDUCATION: _____

DATE OJT INITIATED: _____

TRAINING OFFICIAL: _____

SUPERVISOR: _____

IN-HOUSE TRAINING

Training Task	Method	Date Completed
1. Introduction/Briefings	Executive Director	_____
A. Orientation (See Checklist)		
2. Review and be familiar with:		
A. Operational/Technical Procedures Rules or Regulations	Briefings and Self Instruction	_____
B. Program Administrative SOP's	Briefings	_____
C. State Statutes	Self Instruction	_____
D. Summary of EPA Guidance	Briefing and Self Instruction	_____
E. EPA Program Grant Guidance	Self Insturction	_____
3. Administrative Procedures:		
A. Budget Formulation	Briefing	_____
B. Program Management Information System	Briefing and Self Instruction	_____
C. Administrative Policy Formulation	Briefing	_____
D. Affirmitive Action/EEO	Human Resources	_____

FORMAL TRAINING

4.	Personnel Management	Human Resources	_____
5.	Budgeting	Accounting	_____
6.	Management Information Systems	Classroom Course	_____
7.	Legal Applications	Chief Counsel	_____
8.	Conflict Management	Human Resources/Seminar	_____
9.	Ethics in the Public Sector	Human Resources/Seminar	_____

_____ has satisfactorily completed all training requirements.

Supervisor _____

Training Official _____

ON-THE-JOB TRAINING PLAN
FOR ADMINISTRATIVE SECRETARY

NAME:_____

JOB CLASSIFICATION:_____

FORMAL EDUCATION:_____

DATE OJT INITIATED:_____

TRAINING OFFICIAL:_____

SUPERVISOR:_____

Orientation Checklist	Method	Date Completed
1. Explain the mission and organization of _____ Additionally, brief the individual on:	Briefing by Supervisor	_____
a. Specific functions of the Program /Department/Division/Section		_____
b. Introduce individual to key personnel		_____
c. Weekly and Daily Work Schedules		_____
d. The individual's work requirements		_____
e. Accepted work practices		_____
f. Leave Policies		_____
g. Temporary Travel in-and-out of state		_____
h. Compensatory time		_____
i. Use and care of official vehicles		_____
j. Reporting requirements		_____
k. Process and/or prepare requisitions for safety equipment		_____
2. Defensive Driving Course	_____	_____
3. Affirmative Action	_____	_____

IN-HOUSE TRAINING

Training Task	Method	Date Completed
1. Orientation (See Checklist)	Briefing by Supervisor and Self Instruction	_____
2. Department Administrative Procedures	Briefing and Self Instruction	_____
a. Telephone Etiquette	Briefing	_____
b. Use of Office Equipment	Hands-On	_____
(1) Personal Computer		
(2) Facsimile		
(3) Reproduction Machines		
c. Administrative Files	Hands-On	_____
d. Correspondence Management	Hands-On	_____
(1) Document Preparation		
(2) Document Formats		
(3) Document Filing		

FORMAL TRAINING

3. Success Skills for Secretaries	Classroom	_____
4. Time Management	Classroom	_____
5. Priorities Management	Classroom	_____
6. Management Techniques for Secretaries	Classroom	_____
7. Computer Training	Classroom/Hands-On	_____
8. Management Information Systems	Classroom	_____
9. Communication Skills	Classroom/Workshops/Seminars	_____
10. Managing in the Public Sector	Workshops/Seminars	_____
11. Conflict Management	Classroom	_____
12. Ethics in the Public Sector	Workshops/Seminars	_____

_____ has satisfactorily completed all training requirements.

Supervisor _____
Training Official _____
Agency Administrator/Director _____

ON-THE-JOB TRAINING

METEOROLOGY/AIR MODELING POSITIONS

NAME:

JOB CLASSIFICATION:

FORMAL EDUCATION:

DATE OJT INITIATED:

TRAINING OFFICIAL:

SUPERVISOR:

IN-HOUSE TRAINING

	TRAINING TASK	METHOD	DATE COMPLETED
1)	Orientation:		
	Knowledge of Air Pollution Control Act, Rules and Regulations, Emission Inventory, etc.	Briefing by Supervisor and self-instruction	---------
	Title V Permits	Bureau Staff	---------
	New Source Review	Bureau Staff	---------
2)	Department Orientation	Human Resources	---------
3)	Electronic Messaging	Bureau Staff	---------
4)	Department Technical Academy	Department Staff	---------
5)	Write to the Point	Human Resources	---------
6)	Conflict Management	Human Resources	---------
7)	Negotiation Workshop	Human Resources	---------
8)	Supervisory Academy (when applicable)	Human Resources	---------

FORMAL TRAINING

9)	Air Pollution Control Orientation (SI: 422)	Self-instruction	---------

10)	EPA - Levels I, II and III	Classroom EOHSI, NJ	---------
11)	Basic Air Pollution Meteorology (SI: 409)	Self-Instruction	---------
12)	Introduction to Dispersion Modeling (SI: 410)	Self-Instruction	---------
13)	EPA #423 - Air Pollution Dispersion Models - Application	Classroom Area Training Centers	---------
14)	EPA #451 - Introduction to PM10 SIP Development	Classroom Area Training Centers	---------
15)	Beginning Environmental Statistical Techniques (SI:473A)	Self-Instruction	---------
16)	EPA #400 - Introduction to Air Toxics	Classroom Area Training Centers	---------
17)	Introduction to Risk Assessment/ Risk Management (SI: 400)	Self-Instruction	---------

ON-THE-JOB TRAINING

AMBIENT MONITORING POSITIONS

NAME:

JOB CLASSIFICATION:

FORMAL EDUCATION:

DATE OJT INITIATED:

TRAINING OFFICIAL:

SUPERVISOR:

IN-HOUSE TRAINING

	TRAINING TASK	METHOD	DATE COMPLETED
1)	Orientation:		
	Principles and operating procedures of ambient monitoring equipment	Manuals and hands-on Provided by senior staff	_____
	Commonwealth of PA. Air Monitoring System computer training	Manuals and hands-on Provided by senior staff	_____
	Quality assurance principles and practices	Manuals and hands-on Provided by senior staff	_____
2)	Department Orientation	Human Resources	_____
3)	Department Technical Academy	Department Staff	_____
4)	Electronic Messaging Training	Bureau Staff	_____
5)	Right to Know Training	Bureau Staff	_____
6)	Write to the Point	Human Resources	_____
7)	Conflict Management	Human Resources	_____
8)	Negotiation Workshop	Human Resources	_____
9)	Supervisory Academy (when applicable)	Human Resources	_____

FORMAL TRAINING

	TRAINING TASK	METHOD	DATE COMPLETED
10)	EPA - Level I	Classroom EOHSI, New Jersey	---------
11)	EPA # 165.2 - Personnel Protection and Safety	Classroom/Hands-On Area Training Centers	---------
12)	Basic Air Pollution Meteorology (SI: 409)	Self-instruction	---------
13)	EPA #426 - Statistical Evaluation Methods for Air Pollution Data	Classroom Area Training Centers	---------
14)	EPA #434 - Introduction to Ambient Air Monitoring	Classroom Area Training Centers	---------
15)	EPA #435 - Atmospheric Sampling	Classroom Area Training Centers	---------
16)	EPA #436 - 439 - Site Selection for Monitoring of Specific Pollutants	Classroom Area Training Centers	---------
17)	EPA #443 - Chain of Custody Procedures for Samples and Data	Classroom Area Training Centers	---------
18)	EPA #464 - Analytical Methods for Air Quality Standards	Classroom Area Training Centers	---------
19)	EPA #470 - Quality Assurance for Measurement Systems	Classroom Area Training Centers	---------
20)	EPA #471 - General QA Consideration for Ambient Monitoring	Classroom Area Training Centers	---------

	TRAINING TASK	METHOD	DATE COMPLETED
21)	EPA #473 - Introduction to Environmental Statistics	Classroom Area Training Centers	_____
22)	Computer Training: Word, Access, Excel, Powerpoint	Classroom/Hands-On Local Contractor	_____
23)	Specific Computer Software/Hardware: DEC, SUMX	Classroom/Hands-On Contractor	_____

Draft 11/21/96

TRAINING MODEL FOR DATA PROCESSING STAFF

IN-HOUSE TRAINING

Training Task	Method	Date Completed
1. Orientation	Briefing by supervisor, and self instruction self instruction	_____ _____
2. Department administrative procedures	Briefings by appropriate administrative staff	
(a) purchasing		(a) _____
(b) inventory		(b) _____
(c) correspondence management & protocols		(c) _____
(d) filing systems		(d) _____
(e) after-hours access and timekeeping protocols		(e) _____
3. Existing data management systems overview	Briefings by appropriate staff	
(a) air quality monitoring data		(a) _____
(b) emissions inventory data		
i) enforcement/compliance data		(b)(i) _____
ii) permit data		(b)(ii) _____
iii) planning data		(b)(iii) _____
iv) mobile sources data		(b)(iv) _____
(c) tracking systems		
i) permits		(c)(i) _____
ii) enforcement actions		(c)(ii) _____
iii) correspondence		(c)(iii) _____
iv) other _____		(c)(iv) _____
(d) financial data systems		(d) _____
(e) equipment inventory data systems		(e) _____

IN-HOUSE TRAINING, Cont.

4. Hardware and software		
(a) equipment inventory overview	**Briefing by appropriate staff**	**(a)** _____
(b) system operation overview	**Briefing by appropriate staff, + self study, + follow-up with appropriate staff**	**(b)** _____
5. Skills development in key software packages	**Self study and projects**	
(a) network operating system*		**(a)** _____
(b) data base management		**(b)** _____
(c) urban ozone		**(c)** _____
(d) other _____		**(d)** _____
6. Modeling applications*	**Self study and projects (See also formal training, below)**	
(a) point sources		**(a)** _____
(b) mobile sources		**(b)** _____
(c) urban ozone		**(c)** _____
(d) other _____		**(d)** _____

* The nature of the job and the size of the agency may dictate that network administration and air quality modeling are performed in a separate unit. In that case, a general understanding of these areas will be sufficient.

FORMAL TRAINING

7. Time management	Classroom	_____
8. Dealing with difficult people	Classroom	_____
9. Personnel rules and regulations	Classroom	_____
10. Human resource management/supervision	Classroom	_____
11. Software training appropriate to the duties and skills of the individual as funds permit		
(a) systems operation	Classroom	_____
(b) software applications	Classroom	_____
(c) _____	Classroom	_____

_____ has satisfactorily completed all training requirements.

Supervisor _____

Training coordinator _____

Agency Director/Administrator _____

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ON-THE-JOB TRAINING PLAN
FOR ADMINISTRATIVE ENFORCEMENT

NAME: _____

JOB CLASSIFICATION: _____

FORMAL EDUCATION: _____

DATE OJT INITIATED: _____

TRAINING OFFICIAL: _____

SUPERVISOR: _____

ON-THE JOB-TRAINING
ADMINISTRATIVE ENFORCEMENT

	TRAINEE	SUPERVISOR	DATE
1. In-House Training			
2. Indoctrination Briefings	_____	_____	_____
A. Agency-Division-Department	_____	_____	_____
B. Agency Policies	_____	_____	_____
C. Administrative Procedures	_____	_____	_____
D. Standard Operating Procedures (SOPs)	_____	_____	_____
3. Review Operation/Technical Procedures, Rules or Regulations			
A. Specific EPA or State Agreements	_____	_____	_____
B. Statutes, Rules, Regulations	_____	_____	_____
4. Safety Policies and Procedures			
A. Safety Requirements (Manual)	_____	_____	_____
B. Emergency Preparedness	_____	_____	_____
5. Field/Site Familairization			
A. Survey Regulated Facilities	_____	_____	_____
B. Familiarity with Pertinent Air Monitoring and Air Pollution Control Systems	_____	_____	_____
6. Preparation of Enforcement Documents			
A. Notice of Violations/Warning Notices	_____	_____	_____
B. Consent Orders/Citations	_____	_____	_____
C. BEN/ABLE or Other Penalty Calculations	_____	_____	_____

ON-THE-JOB-TRAINING
ADMINISTRATIVE ENFORCEMENT

7. PROGRAM/FUNCTIONAL TRAINING REQUIREMENTS

Mandatory	DATE	SUPERVISOR	Electives	DATE	SUPERVISOR
SI:422 Air Pollution Control Orientation or CARB's 100 Series	_____	_____	Western State's Negotiations Training	_____	_____
SI:431 Air Pollution Control Systems for Select Industries	_____	_____	CARB's Source Specific Courses	_____	_____
T 446: Inspection Safety Procedures Or Equivelent CARB course	_____	_____			
444: Air Pollution Field Enforcement or CARB Fundamentals Of Enforcement	_____	_____			
CARB 300 Enforcement Symposium	_____	_____			
Western State's Basic Investigations Course	_____	_____			
CARB 350 Mutual Settlement Workshop or Equivalent Course	_____	_____			

"SI" = Self-Instructional Courses
"T" = Telecourses through Satellite Broadcasting

NOTE: The completion of mandatory and elective training is predicated on availablity of funds and courses provided by EPA, APTI and CARB.

_____ Has satisfactorily completed all training requirements.

Supervisor_____Date:_____
Training Coordinator_____Date:_____
Assistant Director _____Date:_____

ON-THE-JOB TRAINING PLAN
FOR CIVIL (COURT) ENFORCEMENT

NAME: _____

JOB CLASSIFICATION:_____

FORMAL EDUCATION:_____

DATE OJT INITIATED:_____

TRAINING OFFICIAL:_____

SUPERVISOR:_____

ON-THE JOB-TRAINING
CIVIL (COURT) ENFORCEMENT

	TRAINEE	SUPERVISOR	DATE
1. In-House Training			
2. Indoctrination Briefings	_____	_____	_____
A. Agency-Division-Department	_____	_____	_____
B. Agency Policies	_____	_____	_____
C. Administrative Procedures	_____	_____	_____
D. Standard Operating Procedures (SOPs)	_____	_____	_____
3. Review Operation/Technical Procedures, Rules or Regulations			
A. Specific EPA or State Agreements	_____	_____	_____
B. Statutes, Rules, Regulations	_____	_____	_____
4. Safety Policies and Procedures			
A. Safety Requirements (Manual)	_____	_____	_____
B. Emergency Preparedness	_____	_____	_____
5. Field/Site Familiarization			
A. Survey Regulated Facilities	_____	_____	_____
B. Familiarity with Pertinent Air Monitoring and Air Pollution Control Systems	_____	_____	_____
6. Preparation of Enforcement Documents			
A. Notice of Violations/Warning Notices	_____	_____	_____
B. Consent Orders/Citations	_____	_____	_____
C. BEN/ABLE or Other Penalty Calculations	_____	_____	_____

ON-THE-JOB-TRAINING
CIVIL (COURT) ENFORCEMENT

7. PROGRAM/FUNCTIONAL TRAINING REQUIREMENTS

Mandatory	DATE	SUPERVISOR	Electives	DATE	SUPERVISOR
SI:422 Air Pollution Control Orientation or CARB's 100 Series	_____	_____	Western State's Negotiations Training	_____	_____
SI:431 Air Pollution Control Systems for Select Industries	_____	_____	CARB's Source Specific Courses	_____	_____
T 446: Inspection Safety Procedures Or Equivalent CARB course	_____	_____	Western State's Advanced Environmental Enforcement Training	_____	_____
444: Air Pollution Field Enforcement or CARB Fundamentals Of Enforcement	_____	_____	CST:303 Pleading And Litigating Civil Penalties	_____	_____
CARB 300 Enforcement Symposium	_____	_____	CRM: 101 Environmental Crimes Awareness	_____	_____
Western State's Basic Investigations Course	_____	_____			
CARB 350 Mutual Settlement Workshop or Equivalent Course	_____	_____			

"SI" = Self-Instructional Courses
"T" = Telecourses through Satellite Broadcasting

NOTE: The completion of mandatory and elective training is predicated on availability of funds and courses provided by EPA, APTI and CARB.

_____ Has satisfactorily completed all training requirements.

Supervisor_____Date:_____
Training Coordinator_____Date:_____
Assistant Director _____Date:_____

ON-THE-JOB TRAINING PLAN
AIR COMPLIANCE STATIONARY SOURCES

NAME: _____

JOB CLASSIFICATION: _____

FORMAL EDUCATION: _____

DATE OJT INITIATED. _____

TRAINING OFFICIAL: _____

SUPERVISOR: _____

1. In-House Training	TRAINEE	SUPERVISOR	DATE
2. Indoctrination Briefings			
A. Agency-Division-Department			
B. Agency Policies			
C. Administrative Procedures			
D Standard Operating Procedures (SOPs)			
3. Review Operation/Technical Procedures, Rules or Regulations			
A. Specific EPA or State Agreements			
B. Statutes, Rules, Regulations			
4. Safety Policies and Procedures			
A. Safety Requirements (Manual)			
B. Emergency Preparedness			
5. Field/Site Familiarization			
A Survey Regulated Facilities			
B. Familiarity with Pertinent Air Pollution Control Systems			
6. Preparation of Enforcement Documents			
A. Notice of Violations/Warning Notices			
B Consent Orders/Citations			
C. BEN/ABLE or Other Penalty Calculations			

7. PROGRAM/FUNCTIONAL TRAINING REQUIREMENTS

Mandatory	DATE	SUPERVISOR	Electives	DATE	SUPERVISOR
SI:422 Air Pollution Control Orientation or CARB's 100 Series	_____	_____	Western State's Negotiations Training	_____	_____
SI:431 Air Pollution Control Systems for Select Industries	_____	_____	CARB's Source Specific Courses	_____	_____
T 445 Introduction to Baseline Source Inspection Techniques	_____	_____			
T 446 Inspection Safety Procedures Or Equivalent CARB course	_____	_____	Western State's Advanced Environmental	_____	_____
VE 325 Visible Emissions or CARB's 101	_____	_____			
444 Air Pollution Field Enforcement or CARB Fundamentals Of Enforcement	_____	_____	Enforcement Training CST.303 Pleading And Litigating Civil Penalties	_____	_____
450 Source Sampling for Pollutants	_____	_____			
CARB 300 Enforcement Symposium	_____	_____	CRM: 101 Environmental Crimes Awareness	_____	_____
Western State's Basic Investigations	_____	_____			
CARB 350 Mutual Settlement Workshop or Equivalent Course	_____	_____			

"SI" = Self-Instructional Courses
"T" = Telecourses through Satellite Broadcasting

NOTE. The completion of mandatory and elective training is predicated on availability of funds and courses provided by EPA, APTI and CARB.

_____ Has satisfactorily completed all training requirements

Supervisor_____Date _____
Training Coordinator_____Date._____
Assistant Director _____Date._____

ON-THE-JOB TRAINING PLAN
AIR COMPLIANCE MOBILE SOURCES

NAME: _____

JOB CLASSIFICATION _____

FORMAL EDUCATION _____

DATE OJT INITIATED _____

TRAINING OFFICIAL: _____

SUPERVISOR: _____

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5. PROGRAM/FUNCTIONAL TRAINING REQUIREMENTS

Mandatory	DATE	SUPERVISOR	Electives	DATE	SUPERVISOR
EPA's Motor Vehicle Emissions Control self-paced series	_____	_____	480 Control Measures for for CO, O3, and NOX	_____	_____
SI:422 Air Pollution Control Orientation or CARB's 100 Series	_____	_____	484 Motor Vehicle Emissions Control-Diagnosis and Repair	_____	_____
CSU course on auto emissions Control technology, vehicle Maintenance, and A/C operations	_____	_____	485 Motor Vehicle Emissions Control (Revised)	_____	_____
Hands-on intro training in basic MOBILE series, CAL3AHC. And VMT or related systems	_____	_____	486 Motor Vehicle Emissions Control-Quality Assurance for I/M	_____	_____
411 Air Pollution Dispersion Models	_____	_____			
452 Principles and Practice of Air Pollution	_____	_____			

"SI" = Self-Instructional Courses
"T" = Telecourses through Satellite Broadcasting

NOTE: The completion of mandatory and elective training is predicated on availability of funds and courses provided by EPA, APTI and CARB.

_____ Has satisfactorily completed all training requirements.

Supervisor_____Date:_____
Training Coordinator_____Date:_____
Assistant Director _____Date:_____

5. PROGRAM/FUNCTIONAL TRAINING REQUIREMENTS

Mandatory	DATE	SUPERVISOR	Electives	DATE	SUPERVISOR
EPA's Motor Vehicle Emissions Control self-paced series	_____	_____	480 Control Measures for for CO, O3, and NOX	_____	_____
SI:422 Air Pollution Control Orientation or CARB's 100 Series	_____	_____	484 Motor Vehicle Emissions Control-Diagnosis and Repair	_____	_____
CSU course on auto emissions Control technology, vehicle Maintenance, and A/C operations	_____	_____	485 Motor Vehicle Emissions Control (Revised)	_____	_____
Hands-on intro training in basic MOBILE series, CAL3AHC. And VMT or related systems	_____	_____	486 Motor Vehicle Emissions Control-Quality Assurance for I/M	_____	_____
411 Air Pollution Dispersion Models	_____	_____			
452 Principles and Practice of Air Pollution	_____	_____			

"SI" = Self-Instructional Courses
"T" = Telecourses through Satellite Broadcasting

NOTE: The completion of mandatory and elective training is predicated on availability of funds and courses provided by EPA, APTI and CARB.

_____ Has satisfactorily completed all training requirements

Supervisor_____Date _____
Training Coordinator_____Date _____
Assistant Director _____Date _____

ON-THE-JOB TRAINING PLAN
FOR AIR TOXICS SPECIALIST

NAME: _____

JOB CLASSIFICATION _____

FORMAL EDUCATION:_____

DATE OJT INITIATED:_____

TRAINING OFFICIAL:_____

SUPERVISOR:_____

ON-THE JOB-TRAINING
AIRTOXICS SPECIALIST

1. In-House Training	TRAINEE	SUPERVISOR	DATE
2 Indoctrination Briefings			
A. Agency-Division-Department	_____	_____	____
B. Agency Policies	_____	_____	____
C Administrative Procedures	_____	_____	____
D Standard Operating Procedures (SOP)	_____	_____	____
3. Review Operation/Technical Procedures, Rules or Regulations			
A. Specific EPA or State Agreements	_____	_____	____
B. Statutes, Rules, Regulations	_____	_____	____
C. Clean Air Act, as amended	_____	_____	____
D. Specific Air Toxic Laws & Regs	_____	_____	____
.4. Safety Policies and Procedure			
A. Safety Requirements (Manual)	_____	_____	____
B Emergency Preparedness	_____	_____	____
C. Safety Equipment	_____	_____	____
D. First Aid and CPR	_____	_____	____
5. Field/Site Familairization			
A. Survey Regulated Facilities	_____	_____	
B. Familiarity with Pertinent Air Pollution Control Systems & Control Technology	_____	_____	____
C. Familiarity with Toxics Sources	_____	_____	
6. Specific Air Toxics Skills/Activities			
A. Agency Toxics Review Procedures	_____	_____	____
B Federal Toxics Regs.	_____	_____	____
C. Risk Assessment/Risk Management	_____	_____	____

ON-THE-JOB-TRAINING
AIR TOXICS SPECIALIST

7. Program/Functional Training Requirements

Mandatory	DATE	SUPERVISOR	Electives	DATE	SUPERVISOR
SI:422 Air Pollution Control Orientation or CARB's 100 Series	____	_____		____	_____
SI:431 Air Pollution Control Systems for Select Industries	____	_____	CARB's Source Specific Courses	____	_____
T 446: Inspection Safety Procedures or Equivelent CARB course	____	_____			
A. Intermediate	____	_____			
400-Introduction to Hazardous Air Pollutants	____	_____			
B. Advanced					
SI:404-Urban Air Toxics	____	_____			
SI:473B-Introduction to Environmental Statistics	____	_____			
C. Specialty -Monitoring					
435-Atmospheric Samp,ing	____	_____			
426-Statistical Evaluation Methods for Air Pollution Data	____	_____			
D. Specialty-Compliance					
427-Combustion Evaluation	____	_____			
482-Sources and Control of Volatile Organic Air Pollutants	____	_____			

Mandatory	DATE	SUPERVISOR	Electives	DATE	SUPERVISOR
456-Fugitive VOC Leak Detection	____	_____			
SI:458 Hazardous Waste Calculations	____	_____			
502 Hazardous Waste Incineration	____	_____			
503 Acident and Emergency Management	____	_____			

"SI"=Self-Instructional Courses
"T"=Telecourses through Satellite Broadcasting

NOTE. The completion of mandatory and elective training is predicated on availablity of funds and courses provided by EPA, APTI and CARB.

_____ Has satisfactorily completed all training requirements.

Supervisor_____Date._____
Training Coordinator_____Date._____
Assistant Director _____Date·_____

ON-THE-JOB TRAINING PLAN
FOR AIR PERMIT SPECIALIST

NAME: _____

JOB CLASSIFICATION._____

FORMAL EDUCATION._____

DATE OJT INITIATED:_____

TRAINING OFFICIAL:_____

SUPERVISOR·_____

ON-THE JOB-TRAINING
AIR PERMIT SPECIALIST

	TRAINEE	SUPERVISOR	DATE
1. In-House Training			
2. Indoctrination Briefings			
A. Agency-Division-Department	_____	_____	____
B. Agency Policies	_____	_____	____
C. Administrative Procedures	_____	_____	____
D. Standard Operating Procedures (SOPs)	_____	_____	____
3. Review Operation/Technical Procedures, Rules or Regulations			
A. Specific EPA or State Agreements	_____	_____	____
B. Statutes, Rules, Regulations	_____	_____	____
C. Clean Air Act, as amended	_____	_____	____
D. Permit Process/ Regulatory Process	_____	_____	____
4. Safety Policies and Procedures			
A. Safety Requirements (Manual)	_____	_____	____
B Emergency Preparedness	_____	_____	____
5. Field/Site Familairization			
A. Survey Regulated Facilities	_____	_____	____
B. Familiarity with Pertinent Air Pollution Control Systems & Control Technology	_____	_____	____
C. Familiarity with Permitted Sources	_____	_____	____
6. Specific Permitting Skills/Activities			
A. Writing Permits &Permit Conditions	_____	_____	____
B. Negotiation Skills	_____	_____	____
C. Familiarity with Hearing Process	_____	_____	____

ON-THE-JOB-TRAINING
AIR PERMIT SPECIALIST

7. Program/Functional Training Requirements

Mandatory	DATE	SUPERVISOR	Electives	DATE	SUPERVISOR
SI:422 Air Pollution Control Orientation or CARB's 100 Series	_____	_____	Western States' Negotiations Training	_____	_____
SI:431 Air Pollution Control Systems for Select Industries	_____	_____	CARB's Source Specific Courses	_____	_____
T 446: Inspection Safety Procedures Or Equivelent CARB course	_____	_____			
SI:460: Introduction to Permitting	_____	_____			
460 Intro. To Permits	_____	_____			
454 Effective Permit Writing Wkshp	_____	_____			
461 Intermediate Permitting	_____	_____			
SI:453 Overview of PSD Regulations	_____	_____			

"SI" = Self-Instructional Courses
"T" = Telecourses through Satellite Broadcasting

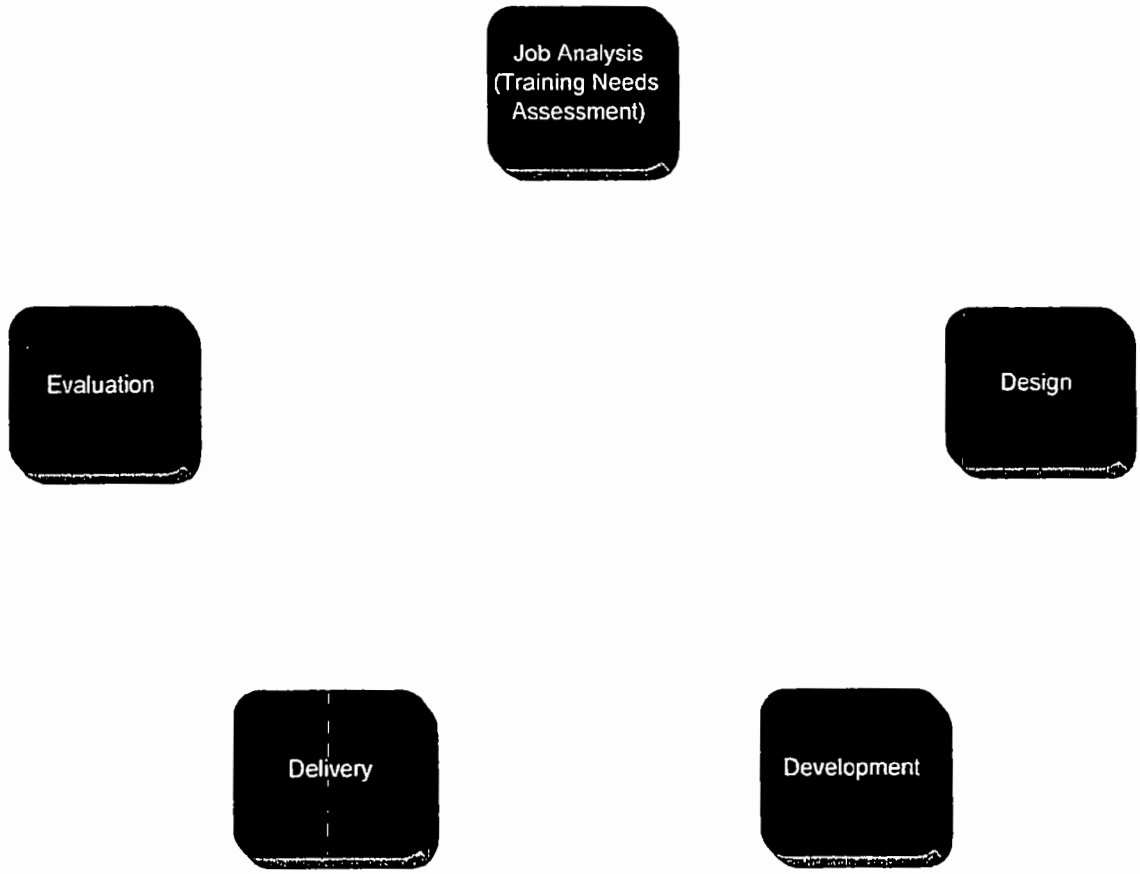
NOTE: The completion of mandatory and elective training is predicated on availablity of funds and courses provided by EPA, APTI and CARB.

_____ Has satisfactorily completed all training requirements.

Supervisor_____Date:_____
Training Coordinator_____Date:_____
Assistant Director _____Date._____

Texas Natural Resource Conservation Commission
September 16, 1997

Training Support Process
for
Career Ladders



Training Support Process
for
Career Ladders (Continued)

Stakeholders

Deputy Executive Director
Deputy Director
Division Director
Section Manager
Subject Matter Experts
Training Academy
Staffing and Classification Section
Compensation and Benefits Section
Budget and Planning Division
Strategic Planning and Appropriations Section

Tasks

Assist with development of Knowledge and Skill Requirements (KSR)
Identify sources for supporting topics for each KSR.
Identify training requirements.
Assist in prioritizing training requirements

Deliverables

Job Specification for each classification level
Training Requirements
- Training Topic Worksheets
- Training Topics Currently Available From Vendors
- Training Topics Currently Available From the Training Academy
- Training Topics To Be Developed By the Training Academy
- Training Requirements Listing
- Prioritized Listing of Training Requirements
- Where Do We Go From Here?

Training Support Process
for
Career Ladders (Continued)

Stakeholders

Division Director
Section Manager
Subject Matter Experts
Training Academy
External Vendors
Budget and Planning Division
Grants and Contracts Management Division
Financial Administration Division
Legal Division

Tasks

- Obtain consolidated, prioritized training requirements listing from division director.
- Review on-the-shelf training topics.
  - Validate goodness of fit of on-the-shelf training with identified training requirements.
  - Modify on-the-shelf training to meet training requirements.
- Research data regarding topics to be developed.
  - Identify possible external and internal sources for design and development of training materials.
- Conduct make or buy analysis:
  - Technical complexity of subject matter
  - Agency-unique versus generic training content
  - Availability of subject matter experts
  - Anticipated demand for the training
  - Costs (direct and indirect)
  - Budget
  - Time
  - Expertise/Experience/Reputation
  - Quality
  - Target Audience
  - Agency History and Culture

- Work with division directors, program staff, and budgeting staff to identify sources of funding.
- Develop contract package to support outsourcing of design, development, and/or delivery, as appropriate.
- Complete the design phase for training to be completed internally:
  - Construct learning objectives (to include condition, behavior, and standard) for each KSR (coordinate with subject matter experts).
  - Construct evaluation items for each objective.
  - Determine the optimal training strategy.
  - Determine the logical sequence for training.

Deliverables

Listing of courses to be outsourced for design, development, and/or delivery
Contract packages for the design, development, and/or delivery of courses
Listing of courses to be developed by agency staff
Learning objectives for each KSR
Evaluation items for each objective
Training strategy for each course module
Sequence of course modules and topics

Training Support Process
for
Career Ladders (Continued)

Stakeholders

Division Director
Section Manager
Subject Matter Experts
Training Academy
External Vendors
Budget and Planning Division
Grants and Contracts Management Division
Financial Administration Division
Legal Division

Tasks

- For development of training materials by external vendors:
  - Host a meeting with representatives of the external vendor and the subject matter experts to:
    -- Clarify contract issues
    -- Review target dates
    -- Establish support requirements
    -- Validate roles and responsibilities
    -- Share information regarding points of contact (such as phone numbers, Internet addresses, and fax numbers)
  - Monitor the vendor's progress in meeting the target timetable
  - Review draft products for overall quality and instructional design soundness
  - Coordinate content review of draft products by subject matter experts.
  - Ensure timely payment of the vendor.
- For development of training materials by agency staff:
  - Select the appropriate delivery method(s).
  - Develop course documentation (in conjunction with subject matter experts):
    -- Course Outline
    -- Class Schedule
    -- Facilitator Guide (to include Lesson Plans and audiovisual aids)

-- Participant Manual
-- Pre-test/Post-test, as applicable

Deliverables

Course Outline
Class Schedule
Facilitator Guide (to include Lesson Plans and audiovisual aids)
Participant Manual
Pre-test/Post-test, as applicable

Training Support Process
for
Career Ladders (Continued)

Stakeholders

Division Director
Section Manager
Subject Matter Experts
Training Academy
Field Operations Division (for training deliveries to Regional Offices)
Regional Office Managers, as appropriate
Regional Office Liaisons (TA and Legal, as appropriate)
Class Participants

Tasks

- For all training deliveries
  - Reserve the training room.
  - Construct a course description and a class announcement.
  - Coordinate with TA Registration Team for data entry into software system
  - Reproduce course materials.
  - Coordinate construction of class signs.
  - Set up the classroom
  - Post proctor/instructor data on the whiteboard (Name, Phone#, and Cube#)
  - Circulate the class roster for signature
  - Administer class evaluations.
  - Distribute course completion certificates.
  - Ensure accomplishment of housekeeping activities.
  - Return the room to the "standard configuration."
  - Return equipment to the storage location
  - Lock cabinets and doors.
  - Pass signed class rosters to the Registration Team
  - Construct a project summary and forward copies to the appropriate team leader and the TA Section Manager

- For delivery of training by external vendors or other agency staff:
  - Coordinate requirements for audiovisual equipment.
  - Coordinate reproduction of handouts.
  - Introduce the speaker to class participants.
  - Monitor the delivery of training.
  - Provide the speaker a copy of class evaluations.
  - Ensure the timely payment of the vendor.
- For delivery of training by Training Academy staff:
  - Reserve audiovisual equipment.
  - Reproduce handouts.
  - Deliver training.

Deliverables

Training for agency staff
Completed course evaluations

Training Support Process
for
Career Ladders (Continued)

Stakeholders

Division Directors
Section Managers
Subject Matter Experts
Training Academy
Field Operations Division (for training deliveries to Regional Offices)
Regional Office Managers, as appropriate
Regional Office Liaisons (TA and Legal, as appropriate)
Class Participants
Participant Supervisors
External Vendor

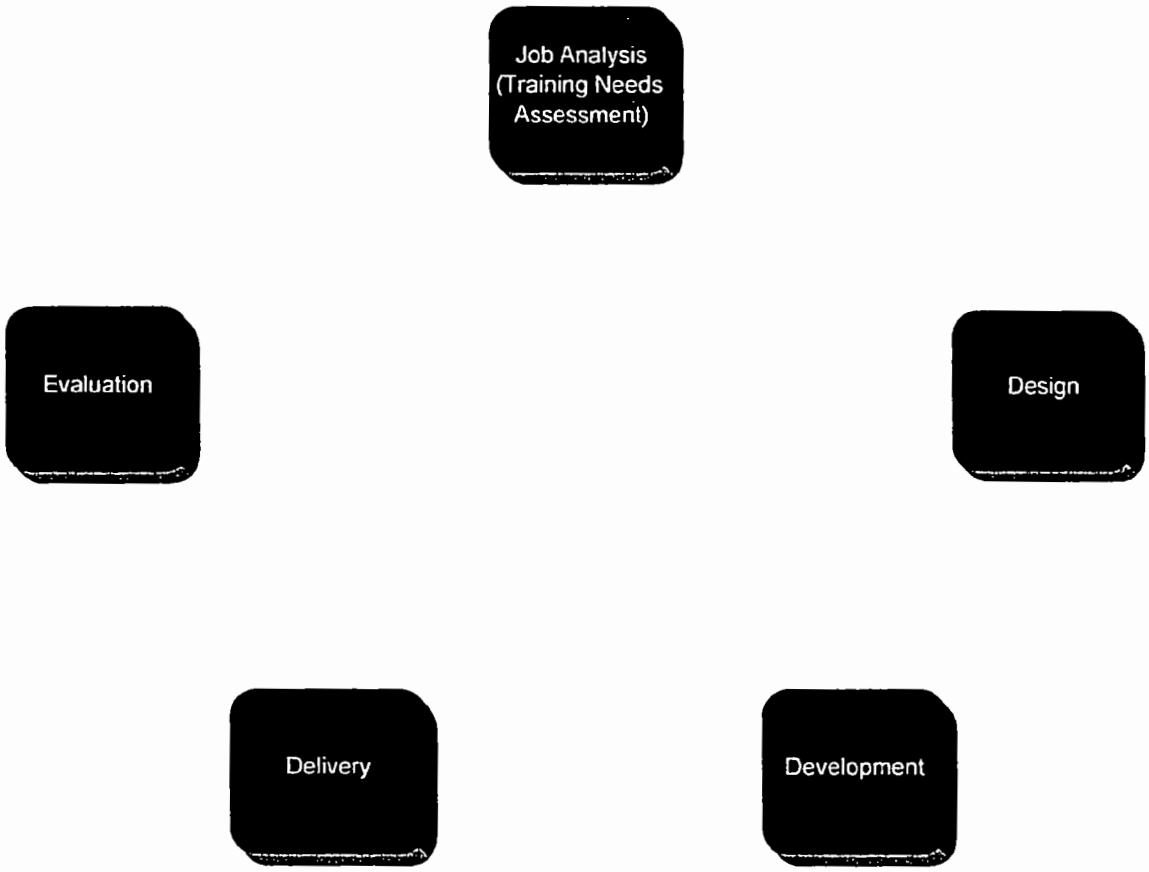
Tasks

- Review class evaluations to identify trends and/or course revisions.
- Provide feedback to external vendors regarding revisions to course materials or presentation skills.
- Revise course materials or presentation skills, as appropriate, for training delivered by agency staff.

Deliverables

Course revisions
Summary of class evaluations for management review

Training Support Process
for
Career Ladders



Training Academy
Willie Bell
(512) 239-6895

Emissions Evaluator

Training Topics Worksheet
for
Emission Evaluator I

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic**
1. Knowledge of applicable local, state, and federal ordinances and laws.			
a. Describe significant federal and state legislation relating to environmental contamination and remediation.	Air Pollution Control Orientation Course (APTI SI:422)	All	Exp, TA
	30 TAC 101 through 122 (Air Regulation)	ST	Exp, OJT
	Introduction to air-related programs	All	Exp, TA (TBD)
	Overview of permitting and enforcement processes	All	Exp, TA (TBD)
	TNRCC Smoke School (Visible Emissions Course)	All	Exp, TA
	Introduction to Hazardous Air Pollutants (APTI 400)	ST	Exp, TA
	40 CFR 60 New Source Performance Standards and Stack Test Methods	ST	Exp, OJT

* AM=Ambient Monitoring Team ST=Stack Testing Team

** Ed = Education (Academic) OJT = Structured On-the-Job Training Exp = Experience (Tenure)
PR = Professional Requirement MQ = Minimum Qualification TA = Training Academy

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2.	Knowledge of air sampling methodologies and techniques.	Air Pollution Control Orientation Course (APTI SI:422)	All	Exp, TA
		TNRCC Smoke School (Visible Emissions Course)	All	Exp, TA
		40 CFR 60 New Source Performance Standards and Stack Test Methods	ST	Exp, OJT
		Principles and Practices of Air Pollution Control (APTI 452)	AM	Exp, TA
		Atmospheric Sampling (APTI 435)	AM	Exp, TA
		Initial Demonstration of Analytical Capabilities (IDAC) for Level I	AM	Exp, OJT
		Sampling Procedures Manual for Level I	All	Exp, OJT
		Laboratory Methods Manual for Level I	All	Exp, OJT
		Laboratory and Mobile Monitoring Quality Assurance Policies and Procedures Manual for Level I	AM	Exp, OJT
3.	Knowledge of scientific and engineering principles, techniques, and procedures.			
	a. Explain operation of pollution abatement equipment.	Air Pollution Control Orientation Course (APTI SI:422)	All	Exp, TA
		Baseline Source Inspection Techniques (APTI 445)	ST	Exp, TA
	b. Explain operation of air sampling equipment.	Baseline Source Inspection Techniques (APTI 445)	ST	Exp, TA
4.	Knowledge of higher mathematics.	Mathematics Review for Air Pollution Control (APTI SI:100)	ST	Exp, TA
5.	Skill in the use and maintenance of various scientific instruments.	Initial Demonstration of Analytical Capabilities (IDAC) for Level I	AM	Exp, OJT
6.	Skill in performing work according to standard operating procedures.	Enforcement and Compliance Guidelines	ST	Exp, OJT
		In-House standard operating procedures	AM	Exp, OJT
		Inspection Safety Procedures (APTI 446)	ST	Exp, TA

7.	Skill in performing algebraic calculations.	Mathematics Review for Air Pollution Control (APTI SI:100)	All	Exp, TA
8.	Skill in organizing routine technical work. a. Adhere to activities and target dates established in project management plans.	None	All	Exp, Exp
9.	Skill in communicating effectively with the public, regulated community and professional groups. a. Communicate clearly and accurately with internal and external customers. b. Review documents for administrative accuracy.	Introduction to the Programs of the TNRCC	All	Exp, TA
10.	Skill in exercising good judgment.	Enforcement and Compliance Guidelines Inspection Safety Procedures (APTI 446)	ST ST	Exp, OJT Exp, TA
11.	Skill in making technically sound decisions.	Enforcement and Compliance Guidelines Inspection Safety Procedures (APTI 446)	ST ST	Exp, OJT Exp, TA
12.	Skill in using word processing and database computer programs. a. Produce documents such as letters, lists, and charts using standard agency software. b. Enter data, search databases, and extract data to support reports and analyses	Windows 3.1/Windows 95 Level I WordPerfect 6.1 for Windows Level I Corel Office Professional 8 Suite for Windows 95 Quattro Pro for Windows Level 1 Paradox for Windows Level I	All All	Exp, TA Exp, TA Exp, TA Exp, TA Exp, TA

13. Skill in working in a safe manner and using personal protection and safety equipment.			
a. Operate in a potentially hazardous area observing appropriate safety procedures.	8-Hour OSHA Refresher Safety Training 24-hour OSHA Safety Training 40-hour OSHA Hazardous Materials	All	Exp, TA
b. Demonstrate effective CPR and First-Aid techniques.	Cardiopulmonary Resuscitation Course A or American Red Cross	All	Exp, TA
c. Demonstrate appropriate safety procedures.	Division training program for Level I	All	Exp, OJT
d. Demonstrate effective hydrogen sulfide safety techniques.	(South Plains College course or Carolyn Guillory, Houston RO)	All	Exp, Ed
e. Demonstrate effective safety procedures while working at heights.	Inspection Safety Procedures (APTI 446)	ST	Exp, TA
f. Demonstrate effective platform safety procedures.	Inspection Safety Procedures (APTI 446)	ST	Exp, TA
14. Knowledge of basic plant operations and those variables that could effect representative sampling.	TNRCC Smoke School (Visible Emissions Course)	All	Exp, TA
	Baseline Source Inspection Techniques (APTI 445)	ST	Exp, TA
15. Skill in evaluating basic plant operational data to verify level of operation during testing.	Baseline Source Inspection Techniques (APTI 445)	ST	Exp, TA
16. Skill in working at heights in excess of 150 feet.	Inspection Safety Procedures (APTI 446)	ST	Exp, TA

17.	Knowledge of the agency's organizational structure, primary functions, and operating policies and procedures.			
	a. Explain the mission and goals of the TNRCC.	Agency Orientation		TA
	b. Apply agency policies and procedures to the work environment.			
	c. Assist internal and external customers in locating appropriate offices and staff to resolve questions and issues.			
	d. Define sexual harassment terms and behavior.	Equal Employment Opportunity for Employees		TA
	e. Apply the agency's policy on sexual harassment to the work environment.			
	f. Define terms associated with disabilities.			
	g. Identify acceptable and unacceptable terminology associated with disabilities.			
	h. Apply the agency's policy on disabilities to the work environment.			
	i. Define terms associated with diversity.			
	j. Identify organizational problems that can inhibit the full participation of a diverse workforce.	Valuing Diversity in the Workplace		Exp, TA
	k. Apply the agency's policy on diversity to the work environment.			

Training Topics Worksheet
for
Emission Evaluator II

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic**
1. Knowledge of applicable local, state, and federal ordinances and laws.			
a. Describe significant federal and state legislation relating to environmental contamination and remediation.	Advanced Source Sampling Workshop (APTI Workshop)	ST	Exp, TA
	Overview of PSD Regulations (APTI SI:453)	ST	Exp, TA
	Continuous Emissions Monitoring Systems - Operation and Maintenance of Gas Monitors (APTI SI:476b)	ST	Exp, TA
	Introduction to Permitting (APTI SI:460)	ST	Exp, TA
	40 CFR 266-290, Appendix IX (00-Level Test Methods)	ST	Exp, OJT
	40 CFR 51, Appendix M, (200-Level Test Methods)	ST	Exp, OJT

* AM=Ambient Monitoring Team ST=Stack Testing Team

** Ed = Education (Academic) OJT = Structured On-the-Job Training Exp = Experience (Tenure)
PR = Professional Requirement MQ = Minimum Qualification TA = Training Academy

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2.	Knowledge of air sampling methodologies and techniques.	Advanced Source Sampling Workshop (APTI Workshop)	ST	Exp, TA
		Analytical Methods for Air Quality Standards (APTI 464)	AM	Exp, TA
		Source Sampling for Pollutants (APTI 450)	ST	Exp, TA
			ST	Exp, TA
		Continuous Emission Monitoring (APTI 474)	AM	Exp, OJT
		Gas chromatography orientation	AM	Exp, OJT
		Urban Air Toxics (APTI SI:404)	AM	Exp, TA
		Introduction to Ambient Air Monitoring (APTI SI:434)	AM	Exp, TA
		Global Positioning System Certification	AM	Exp, TA
		"Redbook" Quality Assurance Handbook for Air Pollution Measurement, Volumes I & III	ST	Exp, OJT
		Quality Assurance for Source Emission Measurements (APTI SI:414)	ST	Exp, TA
		Overview of PSD Regulations (APTI SI:453)	ST	Exp, TA
		Continuous Emissions Monitoring Systems - Operation and Maintenance of Gas Monitors (APTI SI:476b)	ST	Exp, TA
		Initial Demonstration of Analytical Capabilities (IDAC) for Level II	AM	Exp, OJT
		Sampling Procedures Manual for Level II	All	Exp, OJT
		Laboratory Methods Manual for Level II	All	Exp, OJT
		Laboratory and Mobile Monitoring Quality Assurance Policies and Procedures Manual for Level II	AM	Exp, OJT

3. Knowledge of scientific and engineering principles, techniques, and procedures.	Advanced Source Sampling Workshop (APTI Workshop)	ST	Exp, TA
	Analytical Methods for Air Quality Standards (APTI 464)	AM	Exp, TA
	Source Sampling for Pollutants (APTI 450)	ST	Exp, TA
	Continuous Emission Monitoring (APTI 474)	ST	Exp, TA
	"Redbook" Quality Assurance Handbook for Air Pollution Measurement, Volumes I & III	ST	Exp, OJT
	Quality Assurance for Source Emission Measurements (APTI SI:414)	ST	Exp, TA
	Air Pollution Field Enforcement (APTI 444)	AM	Exp, TA
	Gas chromatography orientation	AM	Exp, OJT
	Urban Air Toxics (APTI SI:404)	AM	Exp, OJT
	Introduction to Ambient Air Monitoring (APTI SI:434)	AM	Exp, TA
	Global Positioning System Certification	AM	Exp, TA
	Overview of PSD Regulations (APTI SI:453)	ST	Exp, TA
	Continuous Emissions Monitoring Systems - Operation and Maintenance of Gas Monitors (APTI SI:476b)	ST	Exp, TA
	How to Comply With Good Laboratory Practices Regulations (APTI Workshop)	AM	Exp, TA

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4.	Knowledge of higher mathematics and statistics.	"Redbook" Quality Assurance Handbook for Air Pollution Measurement, Volumes I & III	ST	Exp, OJT
		Quality Assurance for Source Emission Measurements (APTI SI:414)	ST	Exp, TA
		Introduction to Ambient Air Monitoring (APTI SI:434)	AM	Exp, TA
5.	Knowledge of basic plant operations and those variables that could effect representative sampling.	None	All	Exp
6.	Skill in the use and maintenance of various scientific instruments.	Gas chromatography orientation	AM	Exp, OJT
		Global Positioning System Certification	AM	Exp, TA
		"Redbook" Quality Assurance Handbook for Air Pollution Measurement, Volumes I & III	ST	Exp, OJT
		Quality Assurance for Source Emission Measurements (APTI SI:414)	ST	Exp, TA
		RG-31d (Regulatory Guidance)	ST	Exp, OJT
		Analytical Methods for Air Quality Standards (APTI 464)	AM	Exp, TA
		Initial Demonstration of Analytical Capabilities (IDAC) for Level II	AM	Exp, OJT
7.	Skill in performing work according to standard operating procedures.	Analytical Methods for Air Quality Standards (APTI 464)	AM	Exp, TA
		Time Management	All	Exp, TA
8.	Skill in performing algebraic and statistical calculations.	Introduction to Ambient Air Monitoring (APTI SI:434)	AM	Exp, TA
		"Redbook" Quality Assurance Handbook for Air Pollution Measurement, Volumes I & III	ST	Exp, OJT
		Quality Assurance for Source Emission Measurements (APTI SI:414)	ST	Exp, TA

9. Skill in planning and organizing routine technical work. a. Adhere to activities and target dates established in project management plans.	Time Management	All	Exp, TA
10. Skill in communicating effectively with the public, regulated community and professional groups. a. Communicate clearly and accurately with internal and external customers. b. Review documents for administrative accuracy.	Writing That Speaks!	All	Exp, TA
11. Skill in exercising good judgment.	Time Management Introduction to Permitting (APTI SI:460)	All ST	Exp, TA Exp, TA
12. Skill in making technically sound decisions.	Time Management	All	Exp, TA
13. Skill in using computers for word processing and database manipulation.. a. Produce documents such as letters, lists, and charts using standard agency software. b. Enter data, search databases, and extract data to support reports and analyses	Windows 3.1/ Windows 95 Level II WordPerfect 6.1 for Windows Level II CANVAS/Map Expert Paradox for Windows Level II Quattro Pro for Windows Level II	All All AM All All	Exp, TA Exp, TA Exp, OJT Exp, TA Exp, TA
14. Ability to work in a safe manner and to use personal protection and safety equipment.	Division training program for Level II	AM	Exp, OJT
15. Skill in evaluating basic plant operational data to verify level of operation during testing.	None	ST	Exp
16. Skill in working at heights in excess of 150 feet.	None	ST	Exp

Training Topics Worksheet
for
Emission Evaluator III

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic**
1. Knowledge of applicable local, state, and federal ordinances and laws.			
a. Describe significant federal and state legislation relating to environmental contamination and remediation.	Sources and Control of Volatile Organic Air Pollutants (APTI 482)	ST	Exp, TA
	40 CFR 61 (National Emission Standards for Hazardous Air Pollutants (NESHAPS))	ST	Exp, OJT
	SWA 846 (Solid Waste Methods)	ST	Exp, OJT
	Measuring the Emission of Organic Compounds to the Atmosphere (APTI SI:483)	ST	Exp, TA

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2. Knowledge of air sampling methodologies and techniques.	Soil Sampling and Quality Assurance for Superfund	AM	Exp, TA
	Visible Emission Evaluation Instructors Workshop (APTI 539)	ST	Exp, TA
	Beginning Environmental Statistical Techniques (APTI SI:473a)	All	Exp, TA
	Sources and Control of Volatile Organic Air Pollutants (APTI 482)	ST	Exp, TA
	Sampling Procedures Manual for Level III	All	Exp, OJT
	Laboratory Methods Manual for Level III	All	Exp, OJT
	Laboratory and Mobile Monitoring Quality Assurance Policies and Procedures Manual for Level III	AM	Exp, OJT
	Initial Demonstration of Analytical Capabilities (IDAC) for Level III	AM	Exp, OJT
	40 CFR 61 (National Emission Standards for Hazardous Air Pollutants (NESHAPS))	ST	Exp, OJT
	SWA 846 (Solid Waste Methods)	ST	Exp, OJT
	Measuring the Emission of Organic Compounds to the Atmosphere (APTI SI:483)	ST	Exp, TA

3. Knowledge of scientific and engineering principles, techniques, and procedures.	Soil Sampling and Quality Assurance for Superfund	AM	Exp, TA
	Visible Emission Evaluation Instructors Workshop (APTI 539)	ST	Exp, TA
	Air Pollution Control Systems for Selected Industries (APTI SI:431)	ST	Exp, TA
	Sources and Control of Volatile Organic Air Pollutants (APTI 482)	ST	Exp, TA
	Control of Particulate Emissions (APTI 413)	ST	Exp, TA
	Control of Gaseous Emissions (APTI 415)	ST	Exp, TA
	Measuring the Emission of Organic Compounds to the Atmosphere (APTI SI:483)	ST	Exp, TA
	Fabric Filter Operation Review (APTI SI: 412a)	ST	Exp, TA
	Electrostatic Precipitator Plan Review (APTI SI:412b)	ST	Exp, TA
	Wet Scrubber Plan Review (APTI SI: 412c)	ST	Exp, TA
	Basic Air Pollution Meterology (APTI SI:409)	AM	Exp, TA

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4.	Knowledge of moderately complex plant operations and those variables that could effect representative sampling.	Visible Emission Evaluation Instructors Workshop (APTI 539) Air Pollution Control Systems for Selected Industries (APTI SI:431) Sources and Control of Volatile Organic Air Pollutants (APTI 482) Control of Particulate Emissions (APTI 413) Control of Gaseous Emissions (APTI 415) Measuring the Emission of Organic Compounds to the Atmosphere (APTI SI:483) Fabric Filter Operation Review (APTI SI: 412a) Electrostatic Precipitator Plan Review (APTI SI:412b) Wet Scrubber Plan Review (APTI SI: 412c)	ST ST ST ST ST ST ST ST ST	Exp, TA Exp, TA Exp, TA Exp, TA Exp, TA Exp, TA Exp, TA Exp, TA Exp, TA
5.	Skill in the use and maintenance of various complex scientific instruments.	Initial Demonstration of Analytical Capabilities (IDAC) for Level III	AM	Exp, OJT
6.	Skill in following standard operating procedures.	Soil Sampling and Quality Assurance for Superfund	AM	Exp, TA
7.	Ability to work in a safe manner. a. Operate in a potentially hazardous area observing appropriate safety procedures.	Division training program for Level III	AM	Exp, OJT
8.	Skill in performing work according to standard operating procedures.	None	All	Exp
9.	Skill in performing emission estimate calculations using field data.	Beginning Environmental Statistical Techniques (APTI SI: 473a)	All	Exp, TA

10. Skill in evaluating moderately complex plant operational data to verify level of operation during testing.	None	All	Exp
11. Skill in effectively planning, organizing, and completing moderately complex technical work. a. Adhere to activities and target dates established in project management plans.	Project Management Essentials	All	Exp, TA
12. Skill in preparing technical test evaluation reports.	Beginning Environmental Statistical Techniques (APTI SI: 473a)	All	Exp, TA
13. Skill in assisting in managing and planning group efforts on environmental activities	None	All	Exp
14. Skill in communicating effectively with the public, regulated community and professional groups. a. Communicate clearly and accurately with internal and external customers. b. Review documents for administrative accuracy.	Negotiating Environmental Agreements	ST	Exp, TA
15. Skill in reviewing reports and studies for technical correctness.	Beginning Environmental Statistical Techniques (APTI SI: 473a) Determining technical accuracy of essential information in a timely manner	All ST	Exp, TA Exp, TA (TBD)
16. Skill in exercising good judgment.	Visible Emission Evaluation Instructors Workshop (APTI 539) Negotiating Environmental Agreements	ST ST	Exp, TA Exp, TA

17. Skill in making technically sound decisions.	Soil Sampling and Quality Assurance for Superfund	AM	Exp, TA
	Visible Emission Evaluation Instructors Workshop (APTI 539)	ST	Exp, TA
	Beginning Environmental Statistical Techniques (APTI SI: 473a)	All	Exp, TA
18. Skill in using computers for word processing and database manipulation..			
a. Produce documents such as letters, lists, and charts using standard agency software.	WordPerfect 6.1 for Windows Level III	All	Exp, TA
b. Enter data, search databases, and extract data to support reports and analyses	Paradox for Windows Level III	All	Exp, TA
	Quattro Pro for Windows Level III	All	Exp, TA
19. Skill in working at heights in excess of 150 feet.	None	ST	Exp

Training Topics Worksheet
for
Emission Evaluator IV

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic**
1. Knowledge of applicable local, state, and federal ordinances and laws. a. Describe significant federal and state legislation relating to environmental contamination and remediation.	Compliance Assurance Monitoring (CAM) and Flexible Permitting (APTI Workshop)	ST	Exp, TA
	Advanced Inspection Techniques (APTI 455)	ST	Exp, TA
2. Knowledge of air sampling methodologies and techniques.	Volatile Organic Compounds Workshop (APTI Workshop)	ST	Exp, TA
	Gas chromatography/mass spectrometer orientation	AM	Exp, OJT
	Reference and Automated Equivalent Measurement Methods (APTI SI:438)	AM	Exp, TA
	Sampling Procedures Manual for Level IV	AM	Exp, OJT
	Laboratory Methods Manual for Level IV	AM	Exp, OJT
	Laboratory and Mobile Monitoring Quality Assurance Policies and Procedures Manual for Level IV	AM	Exp, OJT
	Initial Demonstration of Analytical Capabilities (IDAC) for Level IV	AM	Exp, OJT

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PR = Professional Requirement MQ = Minimum Qualification TA = Training Academy

3. Knowledge of scientific and engineering principles, techniques, and procedures.	Volatile Organic Compounds Workshop (APTI Workshop)	ST	Exp, TA
	Gas chromatography/mass spectrometer orientation	AM	Exp, OJT
	Reference and Automated Equivalent Measurement Methods (APTI SI:438)	AM	Exp, TA
	Introduction to Boiler Operations (APTI SI:428)	ST	Exp, TA
	Emission Capture and Gas Handling System Inspection (APTI 345)	ST	Exp, TA
	Combustion Evaluation (APTI 427)	ST	Exp, TA
	Orientation to Quality Assurance Management and Data Quality Objectives	All	Exp, TA
	Quality Management Plans and Quality Assurance Project Plans	All	Exp, TA
4. Knowledge of complex plant operations and those variables that could effect representative sampling.	Advanced Inspection Techniques (APTI 455)	ST	Exp, TA
	Volatile Organic Compounds Workshop (APTI Workshop)	ST	Exp, TA
	Petroleum Refining (CARB 288)	All	Exp, TA
	Introduction to Boiler Operations (APTI SI:428)	ST	Exp, TA
	Emission Capture and Gas Handling System Inspection (APTI 345)	ST	Exp, TA
	Combustion Evaluation (APTI 427)	ST	Exp, TA
	Hazardous Waste Calculations (APTI SI: 458)	ST	Exp, TA

5.	Skill in the use and maintenance of various complex scientific instruments.	Volatile Organic Compounds Workshop (APTI Workshop) Gas chromatography/mass spectrometer orientation Initial Demonstration of Analytical Capabilities (IDAC) for Level IV	ST AM AM	Exp, TA Exp, OJT Exp, OJT
6.	Skill in performing complex emission estimate calculations using field data.	Volatile Organic Compounds Workshop (APTI Workshop) Hazardous Waste Calculations (APTI SI: 458)	ST ST	Exp, TA Exp, TA
7.	Skill in developing analytical procedures.	Gas chromatography/mass spectrometer orientation	AM	Exp, OJT
8.	Skill in performing work according to standard operating procedures.	None	All	Exp, Exp
9.	Skill in effectively managing complex technical work. a. Adhere to activities and target dates established in project management plans.	Advanced Inspection Techniques (APTI 455) Project Management Tools & Techniques	ST All	Exp, TA Exp, TA
10.	Skill in preparing technical test evaluation reports.	Hazardous Waste Calculations (APTI SI: 458)	TA	Exp, TA
11.	Skill in evaluating complex plant operational data to verify level of operation during testing.	Compliance Assurance Monitoring (CAM) and Flexible Permitting (APTI Workshop) Advanced Inspection Techniques (APTI 455)	ST ST	Exp, TA Exp, TA

12. Skill in communicating effectively with the public, regulated community and professional groups under difficult conditions.			
a. Communicate clearly and accurately with internal and external customers.	Advanced Technical Writing	All	Exp, TA
	Presentation Skills	All	Exp, TA
b. Review documents for administrative accuracy.	None	All	Exp
c. Represent the TNRCC as an expert witness.	Expert Witness Course	All	Exp, TA
13. Skill in reviewing complex reports and studies for technical correctness.	Advanced Inspection Techniques (APTI 455)	ST	Exp, TA
	Orientation to Quality Assurance Management and Data Quality Objectives	All	Exp, TA
	Quality Management Plans and Quality Assurance Project Plans	All	Exp, TA
14. Skill in exercising good judgment.	None	All	Exp
15. Skill in making technically sound decisions.	Orientation to Quality Assurance Management and Data Quality Objectives	All	Exp, TA
	Quality Management Plans and Quality Assurance Project Plans	All	Exp, TA
16. Skill in using computers for word processing and database manipulation.			
a. Produce documents such as letters, lists, and charts using standard agency software.	None	All	Exp
b. Enter data, search databases, and extract data to support reports and analyses	None	All	Exp
17. Skill in assisting in planning and developing policies and procedures related to source testing compliance activities.	None	ST	Exp

18.	Ability to work in a safe manner. a. Operate in a potentially hazardous area observing appropriate safety procedures.	Division training program for Level IV	All	Exp, OJT
19.	Ability to use personal protection and safety equipment. a. Operate in a potentially hazardous area observing appropriate safety procedures.	Division training program for Level IV	All	Exp, OJT
20.	Skill in working at heights in excess of 150 feet.	None	ST	Exp

Training Topics Worksheet
for
Emission Evaluator V

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic**
1. Skill in the application of personnel management principles.			
a. Exercise responsibilities in employing and supervising persons with disabilities.	Equal Employment Opportunity for Managers	All	Exp, TA
b. Sensitize employees to appropriate etiquette in working with persons with disabilities.			
c. Implement agency policies regarding career ladders.	Performance Management System	All	Exp, TA
d. Resolve employee issues regarding career ladders.			
e. Develop Job Analysis Worksheets (JAW) for job classifications.			
f. Develop an Employee Performance Plan.			
g. Administer and document disciplinary actions in accordance with agency policies.			
h. Develop practical methods for overcoming cultural barriers in the work environment.	Managing Diversity in the Workplace	All	Exp, TA

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PR = Professional Requirement MQ = Minimum Qualification TA = Training Academy

	i. Intervene in situations involving potential discrimination on the basis of race, age, sex, ethnicity, sexual orientation, and physical disability.			
	j. Balance the needs of employees with organizational goals.	Orientation to Supervisory Skills	All	Exp, TA
	k. Apply the agency's operating policies and procedures to the work environment.			
	l. Practice core management functions of planning, organizing, controlling, performing, and leading.			
	m. Develop performance standards.	Performance Management System	All	Exp, TA
	n. Document performance and behavior.			
	o. Provide performance feedback to employees.			
	p. Enforce the agency's policies regarding the prevention of sexual harassment.	Equal Employment Opportunity for Managers	All	Exp, TA
	q. Implement the agencies policies and procedures regarding employment.	TNRCC Hiring Process	All	Exp, TA
	r. Observe federal and state regulations regarding the hiring process.			
2.	Skill in the use and maintenance of various advanced scientific instruments.	Initial Demonstration of Analytical Capabilities (IDAC) for Level V	AM	Exp, OJT

3.	Knowledge of air sampling methodologies and techniques.	Basic Statistics for Environmental Decision Makers	All	Exp, TA
		Engineering Foundation Conference	ST	Exp
		Air and Waste Management Association Conference	ST	Exp
		Air and Waste Management Association Specialty Conferences	ST	Exp
		Sampling Procedures Manual for Level V	AM	Exp, OJT
		Laboratory Methods Manual for Level V	AM	Exp, OJT
		Laboratory and Mobile Monitoring Quality Assurance Policies and Procedures Manual for Level V	AM	Exp, OJT
		Initial Demonstration of Analytical Capabilities (IDAC) for Level V	AM	Exp, OJT
4.	Knowledge of scientific and engineering principles, techniques, and procedures.	Basic Statistics for Environmental Decision Makers	All	Exp, TA
		Hazardous Waste Incineration (APTI 502)	ST	Exp, TA
		Engineering Foundation Conference	ST	Exp
		Air and Waste Management Association Conference	ST	Exp
		Air and Waste Management Association Specialty Conferences	ST	Exp
5.	Knowledge of highly complex plant operations and those variables that could effect representative sampling.	Hazardous Waste Incineration (APTI 502)	ST	Exp, TA
		Engineering Foundation Conference	ST	Exp
		Air and Waste Management Association Conference	ST	Exp
		Air and Waste Management Association Specialty Conferences	ST	Exp
6.	Ability to interpret applicable local, state, and federal ordinances and laws.			
	a. Describe significant federal and state legislation relating to environmental contamination and remediation.	None	All	Exp

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7. Skill in performing advanced emission estimate calculations using field data.	Hazardous Waste Incineration (APTI 502) Statistical Evaluation Methods for Air Pollution Devices (APTI Workshop) Engineering Foundation Conference Air and Waste Management Association Conference Air and Waste Management Association Specialty Conferences	ST ST ST ST ST	Exp, TA Exp, TA Exp Exp Exp
8. Skill in completing complex technical work. a. Adhere to activities and target dates established in project management plans.	None	All	Exp
9. Skill in evaluating highly complex plant operational data to verify level of operation during testing.	None	All	Exp
10. Skill in developing analytical or sampling procedures.	None	All	Exp
11. Skill in performing work according to standard operating procedures.	Basic Statistics for Environmental Decision Makers	All	Exp, TA
12. Skill in effectively planning, directing, and coaching less experienced staff on technical work. a. Identify strengths and weaknesses of team members and assist in developing technical and communication skills. b. Lead meetings with internal and external customers.	Coaching: Preparing Others for Success Leading Effective Meetings	All All	Exp, TA Exp, TA
13. Skill in preparing technical test evaluation reports.	Statistical Evaluation Methods for Air Pollution Devices (APTI Workshop)	ST	Exp, TA

14. Skill in assisting in managing and planning group efforts on environmental activities.	None	All	Exp
15. Skill in communicating effectively with the public, regulated community and professional groups under difficult conditions.			
a. Communicate clearly and accurately with internal and external customers.	None	All	Exp
b. Review documents for administrative accuracy.	None	All	Exp
16. Skill in reviewing advanced reports and studies for technical correctness.	Statistical Evaluation Methods for Air Pollution Devices (APTI Workshop)	ST	Exp, TA
17. Skill in exercising good judgment.	Engineering Foundation Conference	ST	Exp
	Air and Waste Management Association Conference	ST	Exp
	Air and Waste Management Association Specialty Conferences	ST	Exp
18. Skill in making technically sound decisions.	Statistical Evaluation Methods for Air Pollution Devices (APTI Workshop)	ST	Exp, TA
	Engineering Foundation Conference	ST	Exp
	Air and Waste Management Association Conference	ST	Exp
	Air and Waste Management Association Specialty Conferences	ST	Exp
19. Skill in using computers for word processing and database manipulation.			
a. Produce documents such as letters, lists, and charts using standard agency software.	None	All	Exp
b. Enter data, search databases, and extract data to support reports and analyses	None	All	Exp

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20.	Skill in assisting in planning and developing policies and procedures related to testing activities.	Engineering Foundation Conference Air and Waste Management Association Conference Air and Waste Management Association Specialty Conferences	ST ST ST	Exp Exp Exp
21.	Ability to work in a safe manner. a. Operate in a potentially hazardous area observing appropriate safety procedures.	Division training program for Level V	All	Exp, OJT
22.	Ability to use personal protection and safety equipment. a. Operate in a potentially hazardous area observing appropriate safety procedures.	Division training program for Level V	All	Exp, OJT
23.	Skill in working at heights in excess of 150 feet.	None	ST	Exp

Training Topics Worksheet
for
Emission Evaluator VI

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic**
1. Skill in the application of personnel management principles. a. Exercise responsibilities in employing and supervising persons with disabilities. b. Sensitize employees to appropriate etiquette in working with persons with disabilities. c. Implement agency policies regarding career ladders. d. Resolve employee issues regarding career ladders. e. Develop Job Analysis Worksheets (JAW) for job classifications. f. Develop an Employee Performance Plan. g. Administer and document disciplinary actions in accordance with agency policies. h. Develop practical methods for overcoming cultural barriers in the work environment. i. Intervene in situations involving potential discrimination on the basis of race, age, sex, ethnicity, sexual orientation, and physical disability.	None	All	Exp

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PR = Professional Requirement MQ = Minimum Qualification TA = Training Academy

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j. Balance the needs of employees with organizational goals. k. Apply the agency's operating policies and procedures to the work environment. l. Practice core management functions of planning, organizing, controlling, performing, and leading. m. Develop performance standards. n. Document performance and behavior. o. Provide performance feedback to employees. p. Enforce the agency's policies regarding the prevention of sexual harassment. q. Implement the agencies policies and procedures regarding employment. r. Observe federal and state regulations regarding the hiring process.	None	All	Exp
2. Skill in interpreting applicable local, state, and federal ordinances and laws. a. Describe significant federal and state legislation relating to environmental contamination and remediation.	None	All	Exp
3. Knowledge of air sampling methodologies and techniques.	Sampling Procedures Manual for Level VI Laboratory Methods Manual for Level VI Laboratory and Mobile Monitoring Quality Assurance Policies and Procedures Manual for Level VI Initial Demonstration of Analytical Capabilities (IDAC) for Level VI Initial Demonstration of Analytical Capabilities (IDAC) for Level VI	AM AM AM AM AM	Exp, OJT Exp, OJT Exp, OJT Exp, OJT Exp, OJT

4.	Knowledge of scientific and engineering principles and techniques.	None	All	Exp
5.	Knowledge of highly complex plant operations and those variables that could effect representative sampling.	None	All	Exp
6.	Skill in supervising and planning group efforts on environmental activities.	None	All	Exp
7.	Skill in operating and maintaining advanced technical equipment and various detection instruments.	Initial Demonstration of Analytical Capabilities (IDAC) for Level VI	AM	Exp, OJT
8.	Skill in planning and developing policies and procedures.	None	All	Exp
9.	Skill in training personnel on highly complex technical aspects of the job.	None	All	Exp
10.	Skill in performing work according to standard operating procedures.	None	All	Exp
11.	Skill in performing highly advanced emission estimate calculations using field data.	None	All	Exp
12.	Skill in evaluating highly complex plant operational data to verify level of operation during testing.	None	All	Exp
13.	Skill in effectively planning, directing, and coaching less experienced staff on technical work.			
	a. Identify strengths and weaknesses of team members and assist in developing technical and communication skills.	None	All	Exp
	b. Lead meetings with internal and external customers.	None	All	Exp

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14. Skill in completing advanced technical work. a. Adhere to activities and target dates established in project management plans.	None	All	Exp
15. Skill in preparing technical test evaluation reports.	None	All	Exp
16. Skill in communicating effectively with the public, regulated community and professional groups under stressful conditions. a. Communicate clearly and accurately with internal and external customers. b. Review documents for administrative accuracy.	None None	All All	Exp Exp
17. Skill in reviewing highly advanced reports and studies for technical correctness.	None	All	Exp
18. Skill in exercising good judgment.	None	All	Exp
19. Skill in making technically sound decisions.	None	All	Exp
20. Skill in using computers for word processing and database manipulation. a. Produce documents such as letters, lists, and charts using standard agency software. b. Enter data, search databases, and extract data to support reports and analyses	None None	All All	Exp Exp
21. Skill in assisting in planning and developing policies and procedures related to sampling activities.	None	All	Exp
22. Ability to work in a safe manner and use personal protection and safety equipment. a. Operate in a potentially hazardous area observing appropriate safety procedures.	Division training program for Level VI	All	Exp, OJT

23. Skill in working at heights in excess of 150 feet.	None	All	Exp

Modeling and Assessment Specialists and Interns

Training Topics Worksheet
for
Modeling & Assessment Intern I

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic*
1. Knowledge of statistical procedures, mathematics, and computer programming.			Exp, OJT, TA
a. Assist in conducting graphical analyses.	Paradox Level I Quattro Pro Level I FoxPro Programming Level I	EI, MOPS	
b. Assist in developing emissions inventories.	Paradox Level I Quattro Pro Level I Principles and Practices of Air Pollution Control (APTA/I) Air Pollution Control Orientation Course (APTA/I) Operating Permits Division training videos (Job Aid)	EI	
c. Assist in conducting GIS spatial analyses.	Global Positioning System Certification	EI	

* Ed = Education (Academic) OJT = Structured On-the-Job Training Exp = Experience (Tenure)
PR = Professional Requirement MQ = Minimum Qualification TA = Training Academy

** EI = Emissions Inventory
MOPS = MOPS--Data Management, Statistical Sciences, and Air Pollution Meteorology
NSR = New Source Review Permits Modeling
SIP=State Implementation Plan Modeling

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2. Knowledge of the principles and practices of environmental science and applied science.			Exp, OJT, TA
a. Assist in conducting graphical analyses.	Paradox Level I Quattro Pro Level I FoxPro Programming Level I	EI, MOPS	
b. Assist in developing emissions inventories.	Paradox Level I Quattro Pro Level I Operating Permits training videos (Job Aid)	EI	
c. Assist in conducting GIS spatial analyses.	Global Positioning System Certification	EI	
3. Skill in assisting in the preparation of technical reports and other appropriate documentation.			Exp, OJT, TA
a. Assist in developing emissions inventories.	Writing That Speaks!	EI	
4. Skill in using computers for word processing and database manipulation.			Exp, OJT, TA
a. Assist in developing emissions inventories.	Paradox Level I Quattro Pro Level I	EI, MOPS	
b. Assist in producing documents such as letters, lists, and charts using standard agency software.	Windows 3.1 Level I WordPerfect 6.1 for Windows Level I Corel Office Professional 8 Suite for Windows 95	All	
c. Review documents for administrative accuracy.			
d. Enter data, search databases, and extract data to support reports and analyses.	Paradox Level I Quattro Pro Level I FoxPro Programming Level I	All	
e. Assist in conducting GIS spatial analyses.	Global Positioning System Certification	EI	
5. Skill in following policies and procedures.	Agency Orientation Performance Management System Overview Career Ladder Overview for Employees	All	Exp, OJT

6. Skill in complying with appropriate OSHA safety standards. a. Operate in a potentially hazardous area observing appropriate safety procedures.	8-Hour OSHA Refresher Safety Training 24-hour OSHA Safety Training Course 40-hour OSHA Hazardous Materials Training Course	EI, NSR, SIP	Exp, TA
7. Knowledge of the agency's organizational structure, primary functions, and operating policies and procedures. a. Explain the mission and goals of the TNRCC. b. Apply agency policies and procedures to the work environment. c. Assist internal and external customers in locating appropriate offices and staff to resolve questions and issues. d. Define sexual harassment terms and behavior. e. Apply the agency's policy on sexual harassment to the work environment. f. Define terms associated with disabilities. g. Identify acceptable and unacceptable terminology associated with disabilities. h. Apply the agency's policy on disabilities to the work environment. i. Define terms associated with diversity. j. Identify organizational problems that can inhibit the full participation of a diverse workforce. k. Apply the agency's policy on diversity to the work environment.	Agency Orientation Sexual Harassment Prevention for Employees An Employee's Guide to the Americans With Disabilities Act Valuing Diversity in the Workplace	All	Exp, OJT, TA

Training Topics Worksheet
for
Modeling & Assessment Assistant I

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic*
1. Knowledge of statistical procedures, mathematics, and computer programming.			Exp, OJT, TA
a. Assist in conducting graphical analyses.	Paradox Level I Quattro Pro Level I FoxPro Programming Level I	EI, MOPS	
b. Assist in developing emissions inventories.	Paradox Level I Quattro Pro Level I Principles and Practices of Air Pollution Control (APTA/I) Air Pollution Control Orientation Course (APTA/I) NAAQS Standards (APTA/I) Federal Clean Air Act (APTA/I) RE:100 Prerequisite Reading on Control Technology (APTA/I) Operating Permits training videos (Job Aid)	EI	
c. Assist in conducting GIS spatial analyses.	Global Positioning System Certification	EI	
d. Convert data into database format.	Paradox Level I Quattro Pro Level I FoxPro Programming Level I	EI, MOPS	

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PR = Professional Requirement MQ = Minimum Qualification TA = Training Academy

** EI = Emissions Inventory
MOPS = MOPS--Data Management, Statistical Sciences, and Air Pollution Meteorology
NSR = New Source Review Permits Modeling
SIP=State Implementation Plan Modeling

2.	Knowledge of principles and practices of both environmental science and applied science.			Exp, OJT, TA
	a. Assist in conducting graphical analyses.	Paradox Level I Quattro Pro Level I FoxPro Programming Level I	EI, MOPS	
	b. Assist in developing emissions inventories.	Paradox Level I Quattro Pro Level I Operating Permits training videos (Job Aid)	EI	
	c. Assist in conducting GIS spatial analyses.	Global Positioning System Certification	EI	
	d. Review current literature.		All	
	e. Assist in conducting site visits.	8-Hour OSHA Refresher Safety Training 24-hour OSHA Safety Training Course 40-hour OSHA Hazardous Materials Training Course	EI	
3.	Skill in using computers for word processing and database manipulation.			Exp, OJT, TA
	a. Assist in developing emissions inventories.	Paradox Level I Quattro Pro Level I	EI	
	b. Assist in evaluating ambient air quality data.	NAAQS Standards	MOPS	
	c. Assist in producing documents such as letters, lists, and charts using standard agency software.	Windows 3.1 Level I WordPerfect 6.1 for Windows Level I Corel Office Professional 8 Suite for Windows 95	All	
	d. Review documents for administrative accuracy.			
	e. Enter data, search databases, and extract data to support reports and analyses.	Paradox Level I Quattro Pro Level I FoxPro Programming Level I	All	
	f. Assist in conducting GIS spatial analyses.	Global Positioning System Certification	EI	
	g. Convert data into database format.	Paradox Level I Quattro Pro Level I FoxPro Programming Level I	EI, MOPS	

4	Skill in assisting in preparing technical reports and other appropriate documentation. a. Assist in developing emissions inventories.	Writing That Speaks!	All	Exp, OJT, TA
5.	Skill in following policies and procedures.	Agency Orientation Performance Management System Overview Career Ladder Overview for Employees	All	Exp, OJT, TA
6.	Skill in complying with appropriate OSHA safety standards. a. Operate in a potentially hazardous area observing appropriate safety procedures.	8-Hour OSHA Refresher Safety Training 24-hour OSHA Safety Training Course 40-hour OSHA Hazardous Materials Training Course	EI, NSR, SIP	Exp, TA

7	Knowledge of the agency's organizational structure, primary functions, and operating policies and procedures. a. Explain the mission and goals of the TNRCC. b. Apply agency policies and procedures to the work environment. c. Assist internal and external customers in locating appropriate offices and staff to resolve questions and issues. d. Define sexual harassment terms and behavior. e. Apply the agency's policy on sexual harassment to the work environment. f. Define terms associated with disabilities. g. Identify acceptable and unacceptable terminology associated with disabilities. h. Apply the agency's policy on disabilities to the work environment. i. Define terms associated with diversity. j. Identify organizational problems that can inhibit the full participation of a diverse workforce. k. Apply the agency's policy on diversity to the work environment.	Agency Orientation Sexual Harassment Prevention for Employees An Employee's Guide to the Americans With Disabilities Act Valuing Diversity in the Workplace	All	Exp, OJT, TA
8.	Skill in communicating effectively. a. Communicate clearly and accurately with internal and external customers. b. Using available resources, provide accurate responses to customer inquiries regarding agency organization and functions.	Writing That Speaks! Introduction to the Programs of the TNRCC	All	Exp, OJT, TA

9. Skill in organizing multiple tasks under close supervision. a. Assist in prioritizing assigned tasks to ensure completion within established target dates.	Project Management Essentials Time Management	All	Exp, OJT, TA

Training Topics Worksheet
for
Modeling & Assessment Assistant II

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic*
1. Skill in applying modeling, statistical procedures, mathematics, and computer programming.			Exp, OJT
a. Assist in performing quality assurance of emissions inventories.	Paradox Level II Quattro Pro Level II	EI, NSR, SIP	
b. Assist in conducting surveys to improve inventories.	AP-42 Compilation of Air Pollution Emission Factors (Job Aid) Mathematical Statistics With Applications, Mendenhall (Job Aid) Environmental Statistics, Ott (Job Aid) Control of Gaseous Emissions (APTA/I) Sources and Control of Organic Air Pollutants (APTA/I) Control of Particulate Emissions (APTA/I)	EI	

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MOPS = MOPS--Data Management, Statistical Sciences, and Air Pollution Meteorology
NSR = New Source Review Permits Modeling
SIP=State Implementation Plan Modeling

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2.	Knowledge of principles and practices of both environmental science and applied science.			Exp, OJT
	a Assist in performing quality assurance of emissions inventories.	Paradox Level II Quattro Pro Level II	EI	
	b. Research current literature.		All	
	c. Assist in conducting surveys to improve inventories.	AP-42 Compilation of Air Pollution Emission Factors (Job Aid) Mathematical Statistics With Applications, Mendenhall (Job Aid) Environmental Statistics, Ott (Job Aid)	EI	
3	Skill in assisting in organizing and analyzing data, organizing and planning workloads, and expressing ideas clearly and concisely.			Exp, OJT, TA
	a. Assist in developing emissions inventories.	Paradox Level II Quattro Pro Level II	EI	
	b. Assist in developing emissions growth factors.	Paradox Level II Quattro Pro Level II	EI	
	c. Assist in prioritizing assigned tasks to ensure completion within established target dates.	Project Management Tools & Techniques	All	
	d. Communicate clearly and accurately with internal and external customers.	Customer Service	All	
	e. Using available resources, provide accurate responses to customer inquiries regarding agency organization and functions.	Customer Service	All	
	f. Interact with other agencies.		EI	
	g. Assist in conducting surveys to improve inventories.	AP-42 Compilation of Air Pollution Emission Factors (Job Aid) Mathematical Statistics With Applications, Mendenhall (Job Aid) Environmental Statistics, Ott (Job Aid)	EI	

4. Skill in assisting in preparing technical reports and other appropriate documentation.			Exp, OJT, TA
a. Assist in performing quality assurance of emissions inventories.	Paradox Level II Quattro Pro Level II	EI	
b. Assist in developing emissions inventories.	Paradox Level II Quattro Pro Level II	EI	
5. Skill in using computers for word processing and database manipulation.			Exp, OJT, TA
a. Assist in performing quality assurance of emissions inventories.	Paradox Level II Quattro Pro Level II	EI	
b Produce documents such as letters, lists, and charts using standard agency software.	Windows 3.1 Level II WordPerfect 6.1 for Windows Level II	All	
c. Review documents for administrative accuracy.		All	
d. Enter data, search databases, and extract data to support reports and analyses.	Paradox Level II Quattro Pro Level II	All	
e. Assist in conducting surveys to improve inventories.	AP-42 Compilation of Air Pollution Emission Factors (Job Aid) Mathematical Statistics With Applications, Mendenhall (Job Aid) Environmental Statistics, Ott (Job Aid)	EI	
6. Skill in following policies and procedures.		All	Exp

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7. Skill in communicating effectively. a. Communicate clearly and accurately with internal and external customers. b. Using available resources, provide accurate responses to customer inquiries regarding agency organization and functions. c. Assist in conducting surveys to improve inventories	Customer Service Customer Service AP-42 Compilation of Air Pollution Emission Factors (Job Aid) Mathematical Statistics With Applications, Mendenhall (Job Aid) Environmental Statistics, Ott (Job Aid)	All All EI	Exp, OJT
8. Skill in organizing multiple tasks under close supervision. a. Assist in prioritizing assigned tasks to ensure completion within established target dates.	Project Management Tools & Techniques	All	Exp, OJT, TA
9. Skill in complying with appropriate OSHA safety standards. a. Operate in a potentially hazardous area observing appropriate safety procedures.		EI, NSR, SIP	Exp

10. Knowledge of the agency's organizational structure, primary functions, and operating policies and procedures. a. Explain the mission and goals of the TNRCC. b. Apply agency policies and procedures to the work environment. c Assist internal and external customers in locating appropriate offices and staff to resolve questions and issues. d Define sexual harassment terms and behavior. e. Apply the agency's policy on sexual harassment to the work environment. f. Define terms associated with disabilities. g. Identify acceptable and unacceptable terminology associated with disabilities. h. Apply the agency's policy on disabilities to the work environment. i. Define terms associated with diversity. j. Identify organizational problems that can inhibit the full participation of a diverse workforce. k. Apply the agency's policy on diversity to the work environment.		All	Exp

Training Topics Worksheet
for
Modeling & Assessment Specialist I

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic*
1. Skill in applying modeling, statistical procedures, higher mathematics, and computer programming.			Exp, OJT, TA
a. Assist in performing statistical analyses.	Basic Statistics for Environmental Decision Making Beginning Environmental Statistical Techniques (APTA/I)	MOPS, NSR, SIP	
b. Conduct graphical analyses.	Basic Statistics for Environmental Decision Making	EI, NSR, SIP	
c. Organize and validate ambient air quality data.	SAS Programming Level I UNISYS/CANDE Gas chromatography data validation TURBOCHROME CAMS data validation LEADS data validation Data Quality Objectives Workshop (EPA)	MOPS, NSR	
d. Evaluate ambient air quality data.		NSR	
e. Assist in developing emissions inventories.	Overview and Update on Air Emissions From Wastewater Treatment Systems and Landfills (APTA/I)	EI	
f. Assist in developing GIS products.		EI	

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** EI = Emissions Inventory
MOPS = MOPS--Data Management, Statistical Sciences, and Air Pollution Meteorology
NSR = New Source Review Permits Modeling
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	g. Conduct GIS spatial analyses.		EI, SIP	Exp, OJT, TA
	h. Perform systems administration.	FoxPro Programming Level II SQL Programming Level I	EI, MOPS, SIP	
	i. Perform air pollution dispersion modeling.		NSR	
	j. Assist in generating emissions projections for future years.	Basic Statistics for Environmental Decision Making	EI, SIP	
2.	Knowledge of principles and practices of environmental science and applied science.			Exp, OJT, TA
	a. Assist in performing statistical analyses.	Basic Statistics for Environmental Decision Making	All	
	b. Conduct graphical analyses.	Basic Statistics for Environmental Decision Making		
	c. Organize and validate ambient air quality data.	UNISYS/CANDE Gas chromatography data validation TURBOCHROME CAMS data validation LEADS data validation Data Quality Objectives Workshop (EPA)	All	
	d. Evaluate ambient air quality data.		MOPS, NSR	
	e. Assist in developing emissions inventories.		NSR	
	f. Assist in developing GIS products.		EI	
	g. Conduct GIS spatial analyses.		EI	
	h. Perform systems administration.	FoxPro Programming Level II SQL Programming Level I	EI, MOPS, SIP	
	i. Perform air pollution dispersion modeling.		NSR	
	j. Assist in generating emissions projections for future years.	Basic Statistics for Environmental Decision Making	EI	

3.	Knowledge of applicable laws, regulations, and policies.			Exp, OJT, TA
	a. Organize and validate ambient air quality data.	UNISYS/CANDE Gas chromatography data validation TURBOCHROME CAMS data validation LEADS data validation Data Quality Objectives Workshop (EPA)	MOPS, NSR	
	b. Evaluate ambient air quality data.	SAS Programming Level I	MOPS, NSR	
	c. Assist in developing emissions inventories.		EI	
	d. Describe significant federal and state legislation relating to air pollution.		All	
	e. Perform air pollution dispersion modeling.		NSR	
	f. Assist in generating emissions projections for future years.		EI	

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4.	Knowledge of the state of the art in the specialty area and related specialties.			Exp, OJT, TA
	a. Perform statistical analyses.	Basic Statistics for Environmental Decision Making SAS Programming Level I	All	
	b. Conduct graphical analyses.	Basic Statistics for Environmental Decision Making	All	
	c. Organize and validate ambient air quality data.	SAS Programming Level I UNISYS/CANDE Gas chromatography data validation TURBOCHROME CAMS data validation LEADS data validation Data Quality Objectives Workshop (EPA)	MOPS, NSR	
	d. Evaluate ambient air quality data.	SAS Programming Level I	NSR	
	e. Assist in developing emissions inventories.		EI	
	f. Assist in developing GIS products.		EI	
	g. Conduct GIS spatial analyses.		EI, SIP	
	h. Perform systems administration.		EI, SIP	
	i. Perform air pollution dispersion modeling.		NSR	
	j. Assist in generating emissions projections for future years.	Basic Statistics for Environmental Decision Making	EI	

5.	Skill in organizing and analyzing data, organizing and planning workloads, and expressing ideas clearly and concisely.			Exp, OJT, TA
	a. Assist in performing statistical analyses.	Basic Statistics for Environmental Decision Making SAS Programming Level I	All	
	b Conduct graphical analyses.	Basic Statistics for Environmental Decision Making	All	
	c. Organize and validate ambient air quality data.	UNISYS/CANDE Gas chromatography data validation TURBOCHROME CAMS data validation LEADS data validation Data Quality Objectives Workshop (EPA)	MOPS, NSR	
	d. Evaluate ambient air quality data.	SAS Programming Level I	EI, MOPS	
	e. Assist in developing emissions inventories.		EI	
	f. Communicate clearly and accurately with internal and external customers.		All	
	g. Using available resources, provide accurate responses to customer inquiries regarding agency organization and functions.		All	
	h. Assist in developing GIS products.		EI	
	i. Conduct GIS spatial analyses.		EI, SIP	
	j. Perform systems administration.	FoxPro Programming Level II SAS Programming Level I SQL Programming Level I	EI, MOPS, SIP	
	k. Perform air pollution dispersion modeling.		NSR	
	l. Assist in generating emissions projections for future years.	Basic Statistics for Environmental Decision Making	EI	
	m. Develop growth factors.	Basic Statistics for Environmental Decision Making	EI	

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6. Skill in assisting in the preparation of technical reports and other appropriate documentation.			Exp, OJT, TA
a. Organize and validate ambient air quality data.	Advanced Technical Writing FoxPro Programming Level II SAS Programming Level I SQL Programming Level I	MOPS, NSR	
b. Evaluate ambient air quality data.	SAS Programming Level I	MOPS, NSR	
c. Assist in developing emissions inventories.		EI	
d. Report AIRS Data to EPA.	EPA AIRS System Uploads EPA AIRS System Retrievals FoxPro Programming Level II SQL Programming Level I	MOPS	
e. Provide ad hoc air quality reports.		MOPS	
f. Perform air pollution dispersion modeling.		NSR	
g. Assist in generating emissions projections for future years.	Basic Statistics for Environmental Decision Making	EI	
h. Develop growth factors.	Basic Statistics for Environmental Decision Making	EI	

7.	Skill in using computers for word processing and database manipulation.			Exp, OJT, TA
	a. Assist in performing statistical analyses.	Basic Statistics for Environmental Decision Making SAS Programming Level I	All	
	b. Conduct graphical analyses.	Basic Statistics for Environmental Decision Making	All	
	c. Organize and validate ambient air quality data.	UNISYS/CANDE Gas chromatography data validation TURBOCHROME CAMS data validation LEADS data validation Data Quality Objectives Workshop (EPA)	MOPS, NSR	
	d. Evaluate ambient air quality data.	SAS Programming Level I	EI, MOPS	
	e Assist in developing emissions inventories.		EI	
	f. Produce documents such as letters, lists, and charts using standard agency software.		All	
	g. Review documents for administrative accuracy.		All	
	h. Enter data, search databases, and extract data to support reports and analyses.		All	
	i. Assist in developing GIS products.		EI	
	j. Conduct GIS spatial analyses.		EI, SIP	
	k. Perform systems administration.		EI, SIP	
	l. Administer PC databases.	FoxPro Programming Level II SQL Programming Level I	MOPS	
	m. Perform air pollution dispersion modeling.		NSR	
	n. Assist in generating emissions projections for future years.	Basic Statistics for Environmental Decision Making	EI	
8.	Skill in following policies and procedures.		All	Exp, OJT

9.	Skill in complying with appropriate OSHA safety standards. a. Operate in a potentially hazardous area observing appropriate safety procedures.		EI, NSR, SIP	Exp, TA
10.	Knowledge of the agency's organizational structure, primary functions, and operating policies and procedures. a. Explain the mission and goals of the TNRCC. b. Apply agency policies and procedures to the work environment. c. Assist internal and external customers in locating appropriate offices and staff to resolve questions and issues. d. Define sexual harassment terms and behavior. e. Apply the agency's policy on sexual harassment to the work environment. f. Define terms associated with disabilities. g. Identify acceptable and unacceptable terminology associated with disabilities. h. Apply the agency's policy on disabilities to the work environment. i. Define terms associated with diversity. j. Identify organizational problems that can inhibit the full participation of a diverse workforce. k. Apply the agency's policy on diversity to the work environment.		All	Exp, OJT

Training Topics Worksheet
for
Modeling & Assessment Specialist II

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic*
1. Skill in applying modeling, statistical procedures, higher mathematics, and computer programming.			Ed, Exp, OJT, TA
a. Conduct surveys to improve inventories.		EI	
b. Generate emissions projections for future years.	Introduction to PM-10 SIP Development	EI, NSR	
	Introduction to Environmental Statistics (APTA/I)		
	Intermediate/Advanced Environmental Statistics (UT)		
	Palisades Statistical Software Package	EI, NSR	
c. Develop emissions growth factors.	Intermediate/Advanced Environmental Statistics (UT)		
	Palisades Statistical Software Package	All	
d. Develop guidance documents.	Orientation to Quality Assurance Management		
	Quality Management Plan and Quality Assurance Project Plan Seminar		
e. Evaluate air pollution dispersion modeling.	Atmospheric Sampling (APTA/I)	NSR	
f. Provide guidance to applicants.		EI, NSR	
g. Provide meteorology and modeling training.		MOPS, NSR	

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PR = Professional Requirement MQ = Minimum Qualification TA = Training Academy

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MOPS = MOPS--Data Management, Statistical Sciences, and Air Pollution Meteorology
NSR = New Source Review Permits Modeling
SIP=State Implementation Plan Modeling

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2.	Knowledge of principles and practices of environmental science and applied science.			Ed, Exp, OJT, TA
	a Conduct surveys to improve inventories.	Preparation of Emission Inventories (APTA/I)	EI	
	b. Generate emissions projections for future years.	Intermediate/Advanced Environmental Statistics (UT) Palisades Statistical Software Package Fabric Filter Operation Review (APTA/I) Electrostatic Precipitator Plan Review (APTA/I) Controlling VOC Emissions from Leaking Process Equipment (APTA/I) Air Pollution Control Systems for Selected Industries (APTA/I) Intermediate/Advanced Environmental Statistics (UT)	EI, NSR	
	c. Develop emissions growth factors.	Palisades Statistical Software Package REMI Model Maintenance and Operation EGAS Model Maintenance and Operation	EI, MOPS, NSR	

d.	Develop guidance documents.	Fabric Filter Operation Review (APTA/I) Electrostatic Precipitator Plan Review (APTA/I) Controlling VOC Emissions From Leaking Process Equipment (APTA/I) Air Pollution Control Systems for Selected Industries (APTA/I) Introduction to Air Toxics (APTA/I) Air Pollution Dispersion Models-Application (APTA/I) Combustion Evaluation (APTA/I) Principles and Practices of Air Pollution Control (APTA/I) Orientation to Quality Assurance Management Quality Management Plan and Quality Assurance Project Plan Seminar	All	Ed, Exp, OJT, TA
e.	Evaluate air pollution dispersion modeling.	Atmospheric Sampling (APTA/I)	NSR	
f.	Provide guidance to applicants.		EI, NSR	
g.	Provide meteorology and modeling training.		NSR	
h.	Manage air monitoring equipment.		MOPS	

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3.	Knowledge of applicable laws, regulations, and policies.			Ed, Exp, OJT, TA
	a. Describe significant federal and state legislation relating to air pollution.		All	
	b. Develop guidance documents.	Fabric Filter Operation Review (APTA/I) Electrostatic Precipitator Plan Review (APTA/I) Controlling VOC Emissions from Leaking Process Equipment (APTA/I) Air Pollution Control Systems for Selected Industries (APTA/I) Orientation to Quality Assurance Management Quality Management Plan and Quality Assurance Project Plan Seminar	All	
	c. Evaluate air pollution dispersion modeling.	Introduction to Air Toxics (APTA/I) Air Pollution Dispersion Models-Application (APTA/I) Combustion Evaluation (APTA/I) Principles and Practices of Air Pollution Control (APTA/I)	NSR	
	d. Provide guidance to applicants.		EI, NSR	
	e. Provide meteorology and modeling training.		NSR	
	f. Manage air monitoring equipment.	Atmospheric Sampling (APTA/I)	MOPS	

4.	Knowledge of the state of the art in the specialty area and related specialties.			Ed, Exp, OJT, TA
	a Conduct surveys to improve inventories.		EI	
	b. Generate emissions projections for future years.	Intermediate/Advanced Environmental Statistics (UT) Palisades Statistical Software Package	EI, NSR	
	c Develop emissions growth factors.	Intermediate/Advanced Environmental Statistics (UT) Palisades Statistical Software Package REMI Model Maintenance and Operation EGAS Model Maintenance and Operation	EI, MOPS, NSR	
	d Develop guidance documents.	Fabric Filter Operation Review (APTA/I) Electrostatic Precipitator Plan Review (APTA/I) Controlling VOC Emissions from Leaking Process Equipment (APTA/I)	All	
	e. Evaluate air pollution dispersion modeling.	Air Pollution Control Systems for Selected Industries (APTA/I) Introduction to Air Toxics (APTA/I) Air Pollution Dispersion Models-Application (APTA/I) Combustion Evaluation (APTA/I)	NSR	
	f. Provide guidance to applicants.	Principles and Practices of Air Pollution Control (APTA/I)	EI, NSR	
	g. Provide meteorology and modeling training.	Atmospheric Sampling (APTA/I)	NSR	
	h. Manage air monitoring equipment.		MOPS	

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5.	Skill in organizing and analyzing data, organizing and planning workloads, and expressing ideas clearly and concisely.			Ed, Exp, OJT, TA
	a. Conduct surveys to improve inventories.		EI	
	b. Generate emissions projections for future years.		EI	
	c. Develop emissions growth factors.	REMI Model Maintenance and Operation EGAS Model Maintenance and Operation	EI, MOPS	
	d. Develop guidance documents.		All	
	e. Evaluate air pollution dispersion modeling.		NSR	
	f. Provide guidance to applicants.		EI, NSR	
	g. Provide meteorology and modeling training.		NSR	
	h. Manage air monitoring equipment.		MOPS	
	i. Lead meetings with internal and external customers.	Atmospheric Sampling (APTA/I) Leading Effective Meetings	All	

6.	Skill in preparing technical reports and other appropriate documentation.			Ed, Exp, OJT, TA
	a. Conduct surveys to improve inventories.		EI	
	b. Generate emissions projections for future years.	Intermediate/Advanced Environmental Statistics (UT) Palisades Statistical Software Package	EI, NSR	
	c. Develop emissions growth factors.	Intermediate/Advanced Environmental Statistics (UT) Palisades Statistical Software Package REMI Model Maintenance and Operation EGAS Model Maintenance and Operation	EI, MOPS, NSR	
	d. Develop guidance documents.	Fabric Filter Operation Review Electrostatic Precipitator Plan Review Controlling VOC Emissions from Leaking Process Equipment Air Pollution Control Systems for Selected Industries Orientation to Quality Assurance Management Quality Management Plan and Quality Assurance Project Plan Seminar	All	
	e. Evaluate air pollution dispersion modeling.	Introduction to Air Toxics (APTA/I) Air Pollution Dispersion Models-Application Combustion Evaluation Principles and Practices of Air Pollution Control	NSR	
	f. Provide guidance to applicants.		EI, NSR	
	g. Provide meteorology and modeling training.		NSR	
	h. Manage air monitoring equipment.	Atmospheric Sampling (APTA/I)	MOPS	

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7.	Skill in using computers for word processing and database manipulation.			Ed, Exp, OJT, TA
	a. Conduct surveys to improve inventories.		EI	
	b. Generate emissions projections for future years.	Intermediate/Advanced Environmental Statistics (UT) Palisades Statistical Software Package Paradox Level III Quattro Pro Level III	EI, NSR	
	c. Develop emissions growth factors.	Intermediate/Advanced Environmental Statistics (UT) Palisades Statistical Software Package REMI Model Maintenance and Operation EGAS Model Maintenance and Operation	EI, MOPS, NSR	
	d Produce documents such as letters, lists, and charts using standard agency software.		All	
	e. Review documents for administrative accuracy.		All	
	f. Compose documents such as letters, memoranda, and lists using standard agency software.		All	
	g. Enter data, search databases, and extract data to support reports and analyses.	Paradox Level III Quattro Pro Level III UNIX Korn Shell Programming	All	
	h Evaluate air pollution dispersion modeling.		NSR	
	i. Provide guidance to applicants.		NSR, EI	
	j. Provide meteorology and modeling training.		NSR	
	k. Manage air monitoring equipment.	Atmospheric Sampling (APTA/I)	MOPS	
8.	Skill in following policies and procedures.		All	Exp

9. Skill in complying with appropriate OSHA safety standards. a. Operate in a potentially hazardous area observing appropriate safety procedures.		All	Exp, OJT, TA

Training Topics Worksheet
for
Modeling & Assessment Specialist III

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic*
1. Skill in applying modeling, statistical procedures, higher mathematics, and computer programming.			Ed, Exp, OJT, TA
a. Evaluate photochemical modeling analyses.	Introduction to Photochemistry, UT, Dr. David Allan	MOPS, NSR, SIP	
b. Develop and evaluate new techniques		All	
c. Perform quality assurance of meteorology.		SIP, NSR, MOPS All	
d. Conduct special studies.	Expert Witness Course	NSR	
e. Testify in hearings and/or trials.		SIP	
f. Perform biogenic emissions modeling.	BEIS Emission Estimation Models Biome Emission Estimation Models	SIP, NSR, EI	
g. Test the model's sensitivities.		SIP, NSR, MOPS	
h. Process meteorological data for input.	FoxPro Programming Level III	SIP, NSR, MOPS	
i. Process emissions inventory before input.		NSR, MOPS	
j. Select air monitoring sites.		MOPS	
k. Manage air monitoring equipment.		MOPS	
l. Conduct real-time analyses of air quality and meteorological data.		MOPS	
m. Provide technical training.	On-the-Job (OJT) Training	All	

* Ed = Education (Academic) OJT = Structured On-the-Job Training Exp = Experience (Tenure)
PR = Professional Requirement MQ = Minimum Qualification TA = Training Academy

** EI = Emissions Inventory
MOPS = MOPS--Data Management, Statistical Sciences, and Air Pollution Meteorology
NSR = New Source Review Permits Modeling
SIP=State Implementation Plan Modeling

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	n. Develop databases (JAD).	Sterling COOL-GEN (formerly TI Composer) Oracle Database Programming Visual Basic Programming Level I Crystal Reports	EI, MOPS	Exp, OJT, TA
2.	Knowledge of principles and practices of environmental science and applied science.			Exp, OJT, TA
	a. Perform quality assurance of meteorology.		SIP, NSR, MOPS	
	b. Conduct special studies.	Expert Witness Course	All	
	c Testify in hearings and/or trials.		NSR	
	d Perform biogenic emissions modeling.	BEIS Emission Estimation Models Biome Emission Estimation Models	SIP	
	e. Test the model's sensitivities.		SIP, NSR, EI	
	f. Process meteorological data for input.		SIP, NSR, MOPS	
	g. Process emissions inventory before input.	FoxPro Programming Level III	SIP, NSR, MOPS	
	h. Select air monitoring sites.		NSR, MOPS	
	i. Manage air monitoring equipment.		MOPS	
	j. Conduct real-time analyses of air quality and meteorological data.		MOPS	
	k. Conduct air quality forecasting and analyses.		MOPS	
	l. Provide technical training.	On-the-Job (OJT) Training	All	
	m. Develop databases (JAD).	Sterling COOL-GEN (formerly TI Composer) Oracle Database Programming Visual Basic Programming Level I	MOPS	

3.	Knowledge of applicable laws, regulations, and policies.			Exp, OJT, TA
	a. Conduct special studies.		All	
	b. Testify in hearings and/or trials.	Expert Witness Course	NSR	
	c Perform biogenic emissions modeling.	BEIS Emission Estimation Models Biome Emission Estimation Models	SIP	
	d. Process emissions inventory before input.	FoxPro Programming Level III	SIP, NSR, MOPS	
	e. Select air monitoring sites.		NSR, MOPS	
	f. Manage air monitoring equipment.		MOPS	
	g. Conduct real-time analyses of air quality and meteorological data.		MOPS	
	h. Conduct air quality forecasting and analyses.		MOPS	
	i. Provide technical training.	On-the-Job (OJT) Training	All	

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4.	Knowledge of the state of the art in the specialty area and related specialties.			Ed, Exp, OJT, TA
	a. Evaluate photochemical modeling analyses.	Introduction to Photochemistry, UT, Dr. David Allan	SIP, NSR, MOPS	
	b. Develop and evaluate new techniques		All	
	c. Perform quality assurance of meteorology.		SIP, NSR, MOPS	
	d. Conduct special studies.	Expert Witness Course	All	
	e. Testify in hearings and/or trials.		NSR	
	f. Perform biogenic emissions modeling.	BEIS Emission Estimation Models Biome Emission Estimation Models	SIP	
	g. Test the model's sensitivities.		SIP, NSR, EI	
	h. Process meteorological data for input.		SIP, NSR, MOPS	
	i. Process emissions inventory before input.	FoxPro Programming Level III	SIP, NSR, MOPS	
	j. Select air monitoring sites.		NSR, MOPS	
	k. Manage air monitoring equipment.		MOPS	
	l. Conduct real-time analyses of air quality and meteorological data.		MOPS	
	m. Conduct air quality forecasting and analyses.		MOPS	
	n. Provide technical training.	On-the-Job (OJT) Training	All	
	o. Develop databases (JAD).	Sterling COOL-GEN (formerly TI Composer) Oracle Database Programming Visual Basic Programming Level I	MOPS	

5.	Skill in organizing and analyzing data, organizing and planning workloads, expressing ideas clearly and concisely, and addressing groups effectively.			Exp, OJT, TA
	a. Perform quality assurance of meteorology.		SIP, NSR, MOPS	
	b. Conduct special studies.		All	
	c. Testify in hearings and/or trials.	Expert Witness Course	NSR	
	d. Perform biogenic emissions modeling.	BEIS Emission Estimation Models Biome Emission Estimation Models	SIP	
	e. Test the model's sensitivities.		SIP, NSR, EI	
	f. Process meteorological data for input.		SIP, NSR, MOPS	
	g. Process emissions inventory before input.	FoxPro Programming Level III	SIP, NSR, MOPS	
	h. Select air monitoring sites.		NSR, MOPS	
	i. Manage air monitoring equipment.		MOPS	
	j. Conduct real-time analyses of air quality and meteorological data.		MOPS	
	k. Conduct air quality forecasting and analyses.		MOPS	
	l Provide technical training.	On-the-Job (OJT) Training	All	
	m. Develop databases (JAD).	Sterling COOL-GEN (formerly TI Composer) Oracle Database Programming Visual Basic Programming Level I Crystal Reports	EI, MOPS	
	n. Prepare and give presentations.	Presentations 3.0 Presentation Skills	All	

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j. Skill in preparing technical reports and other appropriate documentation.			Exp, OJT, TA
a. Perform quality assurance of meteorology.		SIP, NSR, MOPS	
b. Conduct special studies.	Expert Witness Course	All	
c. Testify in hearings and/or trials.		NSR	
d. Perform biogenic emissions modeling.	BEIS Emission Estimation Models Biome Emission Estimation Models	SIP	
e. Test the model's sensitivities.		SIP, NSR, EI	
f. Process emissions inventory before input.	FoxPro Programming Level III Crystal Reports	EI, MOPS, NSR, SIP	
g. Select air monitoring sites.	On-the-Job (OJT) Training	NSR, MOPS	
h. Provide technical training.		EI	
i. Conduct air quality forecasting and analyses.		MOPS	

7	Skill in using computers for word processing and database manipulation.			Exp, OJT, TA
	a. Perform quality assurance of meteorology.		SIP, NSR, MOPS	
	b. Conduct special studies.	Expert Witness Course	All	
	c. Testify in hearings and/or trials.		NSR	
	d. Perform biogenic emissions modeling.	BEIS Emission Estimation Models Biome Emission Estimation Models	SIP	
	e. Test the model's sensitivities.		SIP, NSR, EI	
	f. Process meteorological data for input.		SIP, NSR, MOPS	
	g Process emissions inventory before input.	FoxPro Programming Level III	SIP, NSR, MOPS	
	h. Select air monitoring sites.		NSR, MOPS	
	i. Manage air monitoring equipment.		MOPS	
	j. Conduct real-time analyses of air quality and meteorological data.		MOPS	
	k. Conduct air quality forecasting and analyses.		MOPS	
	l. Provide technical training.	On-the-Job (OJT) Training	All	
	m. Develop databases (JAD).	Sterling COOL-GEN (formerly TI Composer) Oracle Database Programming Visual Basic Programming Level I Crystal Reports	EI, MOPS	
	n. Prepare and give presentations.	Presentations 3.0 Presentation Skills	All	
8.	Skill in following policies and procedures.		All	Exp

Training Topics Worksheet
for
Modeling & Assessment Specialist IV

	Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic*
1	Skill in applying modeling, statistical procedures, higher mathematics, and computer programming.			Exp
	a. Defend workmanship (reports and presentations).		All	
	b. Participate in national technical workgroups, e.g. OTAG.		EI, NSR, SIP	
	c. Testify in hearings and/or trials.		NSR	
	d. Run UAM base cases.		SIP, EI	
	e. Select study episodes.		SIP, EI	
	f. Write the Scope of Work for contracts.		All	
	g. Evaluate contractor performance.		All	
	h. Provide technical advice to the Commission via policy.		All	
	i. Provide technical advice to the Commission via written and oral communications.		All	
	j. Publish documents and present findings at conferences		All	
	k. Run specific control scenarios.		EI, NSR, SIP	

* Ed = Education (Academic)
PR = Professional Requirement
OJT = Structured On-the-Job Training
MQ = Minimum Qualification
Exp = Experience (Tenure)
TA = Training Academy

** EI = Emissions Inventory
MOPS = MOPS--Data Management, Statistical Sciences, and Air Pollution Meteorology
NSR = New Source Review Permits Modeling
SIP=State Implementation Plan Modeling

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	l. Run general control scenarios. m. Conduct air quality forecasting and analyses. n. Propose and negotiate grants. o. Develop border air quality control programs. p. Develop combustion strategies.	Negotiating Environmental Agreements	SIP, NSR, EI MOPS EI, NSR, SIP EI NSR	Exp, TA
2.	Knowledge of principles and practices of environmental science and applied science. a. Defend workmanship (reports and presentations). b. Participate in national technical workgroups, e.g. OTAG. c. Run UAM base cases. d. Select study episodes. e. Write the Scope of Work for contracts. f. Evaluate contractor performance. g. Provide technical advice to the Commission via policy. h. Provide technical advice to the Commission via written and oral communications. i. Publish documents and present findings at conferences. j. Run specific control scenarios. k. Run general control scenarios. l. Conduct air quality forecasting and analyses. m. Propose and negotiate grants. n. Develop border air quality control programs. o. Develop combustion strategies.		All EI, NSR, SIP SIP, EI SIP, EI All All All All All EI, NSR, SIP SIP, NSR, EI MOPS EI, NSR, SIP EI NSR	Exp

3.	Knowledge of applicable laws, regulations, and policies			Exp, TA
	a. Defend workmanship (reports and presentations).		All	
	b Participate in national technical workgroups, e.g. OTAG.		EI, NSR, SIP	
	c. Run UAM base cases.		SIP, EI	
	d. Select study episodes.		SIP, EI	
	e. Write the Scope of Work for contracts.		All	
	f. Evaluate contractor performance.		All	
	g. Provide technical advice to the Commission via policy.		All	
	h. Provide technical advice to the Commission via written and oral communications.		All	
	i Publish documents and present findings at conferences.		All	
	j Run specific control scenarios.		EI, NSR, SIP	
	k. Run general control scenarios.		SIP, NSR, EI	
	l. Conduct air quality forecasting and analyses.		MOPS	
	m. Propose and negotiate grants.	Negotiating Environmental Agreements	EI, NSR, SIP	
	n. Develop border air quality control programs.		EI	
	o. Develop combustion strategies.		NSR	

4.	Knowledge of the state of the art in the specialty area and related specialties.			Exp, TA
	a. Defend workmanship (reports and presentations).		All	
	b. Participate in national technical workgroups, e.g. OTAG.		EI, NSR, SIP	
	c. Run UAM base cases.		SIP, EI	
	d. Select study episodes.		SIP, EI	
	e. Write the Scope of Work for contracts.		All	
	f. Evaluate contractor performance.		All	
	g. Provide technical advice to the Commission via policy.		All	
	h. Provide technical advice to the Commission via written and oral communications.		All	
	i. Publish documents and present findings at conferences.		All	
	j. Run specific control scenarios.		EI, NSR, SIP	
	k. Run general control scenarios.		SIP, NSR, EI	
	l. Conduct air quality forecasting and analyses.		MOPS	
	m. Propose and negotiate grants.	Negotiating Environmental Agreements	EI, NSR, SIP	
	n. Develop border air quality control programs.		EI	
	o. Develop combustion strategies.		NSR	

5.	Skill in organizing and analyzing data, organizing and planning workloads, expressing ideas clearly and concisely, and training others.			Exp, TA
	a. Defend workmanship (reports and presentations).		All	
	b. Participate in national technical workgroups, e.g. OTAG.		EI, NSR, SIP	
	c. Run UAM base cases.		SIP, EI	
	d Select study episodes.		SIP, EI	
	e. Write the Scope of Work for contracts.		All	
	f. Evaluate contractor performance.		All	
	g. Provide technical advice to the Commission via policy.		All	
	h. Provide technical advice to the Commission via written and oral communications.		All	
	i. Publish documents and present findings at conferences.		All	
	j. Run specific control scenarios.		EI, NSR, SIP	
	k. Run general control scenarios.		SIP, NSR, EI	
	l. Conduct air quality forecasting and analyses.		MOPS	
	m. Propose and negotiate grants.	Negotiating Environmental Agreements	EI, NSR, SIP	
	n. Develop border air quality control programs.		EI	
	o. Develop combustion strategies.		NSR	

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j.	Skill in preparing technical reports and other appropriate documentation.			Exp, TA
	a. Defend workmanship (reports and presentations).		All	
	b. Participate in national technical workgroups, e.g. OTAG.		EI, NSR, SIP	
	c. Run UAM base cases.		SIP, EI	
	d. Select study episodes.		SIP, EI	
	e. Write the Scope of Work for contracts.		All	
	f. Evaluate contractor performance.		All	
	g. Provide technical advice to the Commission via policy.		All	
	h. Provide technical advice to the Commission via written and oral communications.		All	
	i. Publish documents and present findings at conferences.		All	
	j. Run specific control scenarios.		EI, NSR, SIP	
	k. Run general control scenarios.		EI, SIP, NSR	
	l. Conduct air quality forecasting and analyses.		MOPS	
	m. Propose and negotiate grants.	Negotiating Environmental Agreements	EI, NSR, SIP	
	n. Develop border air quality control programs.		EI	
	o. Develop combustion strategies.		NSR	

7.	Skill in using computers for word processing and database manipulation.			Exp, IA
	a. Defend workmanship (reports and presentations).		All	
	b. Participate in national technical workgroups, e.g. OTAG.		EI, NSR, SIP	
	c. Run UAM base cases.		SIP, EI	
	d. Select study episodes.		SIP, EI	
	e Write the Scope of Work for contracts.		All	
	f. Evaluate contractor performance.		All	
	g. Provide technical advice to the Commission via policy.		All	
	h. Provide technical advice to the Commission via written and oral communications.		All	
	i. Publish documents and present findings at conferences.		All	
	j. Run specific control scenarios.		EI, NSR, SIP	
	k. Run general control scenarios.		SIP, NSR, EI(MS, EI	
	l. Conduct air quality forecasting and analyses.		MOPS	
	m Propose and negotiate grants.	Negotiating Environmental Agreements	EI, NSR, SIP	
	n. Develop border air quality control programs.		EI	
	o. Develop combustion strategies.		NSR	
	p. Develop in-house air pollution custom applications.	Visual Basic Programming Level II	MOPS	

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8.	Skill in following policies and procedures, as well as planning and developing new policies and procedures.			Exp, TA
	a. Defend workmanship (reports and presentations).		All	
	b. Participate in national technical workgroups, e.g. OTAG.		EI, NSR, SIP	
	c. Run UAM base cases.		SIP, EI	
	d. Select study episodes.		SIP, EI	
	e. Write the Scope of Work for contracts.		All	
	f. Evaluate contractor performance.		All	
	g. Provide technical advice to the Commission via policy.		All	
	h. Provide technical advice to the Commission via written and oral communications.		All	
	i. Publish documents and present findings at conferences.		All	
	j. Run specific control scenarios.		EI, NSR, SIP	
	k. Run general control scenarios.		SIP, NSR, EI	
	l. Conduct air quality forecasting and analyses.		MOPS	
	m. Propose and negotiate grants.	Negotiating Environmental Agreements	EI, NSR, SIP	
	n. Develop border air quality control programs.		EI	
	o. Develop combustion strategies.		NSR	

9.	Skill in representing the agency as an expert witness on matters not requiring registration as a professional engineer.			Exp, TA
	a. Defend workmanship (reports and presentations).		All	
	b. Participate in national technical workgroups, e.g. OTAG.		EI, NSR, SIP	
	c. Run UAM base cases.		SIP, EI	
	d. Select study episodes.		SIP, EI	
	e. Write the Scope of Work for contracts.		All	
	f. Evaluate contractor performance.		All	
	g. Provide technical advice to the Commission via policy.		All	
	h. Provide technical advice to the Commission via written and oral communications.		All	
	i. Publish documents and present findings at conferences.		All	
	j. Run specific control scenarios.		EI, NSR, SIP	
	k. Run general control scenarios.		SIP, NSR, EI	
	l. Conduct air quality forecasting and analyses.		MOPS	
	m. Propose and negotiate grants.	Negotiating Environmental Agreements	EI, NSR, SIP	
	n. Develop border air quality control programs.		EI	
	o. Develop combustion strategies.		NSR	
10.	Skill in directing and supervising staff members.		All	Exp, TA
	a Identify strengths and weaknesses of team members and assist in developing technical and communication skills.	Coaching: Preparing Others for Success		
	b. Lead meetings with internal and external customers.			

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11. Skill in applying federal, state, and agency laws, policies, and procedures to work-related issues.		All	Exp, TA
a. Exercise responsibilities in employing and supervising persons with disabilities.	A Manager's Guide to the Americans with Disabilities Act (ADA)		
b. Sensitize employees to appropriate etiquette in working with persons with disabilities.			
c. Implement agency policies regarding career ladders.	Career Ladder Overview for Supervisors		
d. Resolve employee issues regarding career ladders.			
e. Develop Job Analysis Worksheets (JAW) for job classifications.	Developing JAWS and Writing Performance Plans		
f. Develop an Employee Performance Plan.			
g. Administer and document disciplinary actions in accordance with agency policies.	Disciplinary Action		
h. Develop practical methods for overcoming cultural barriers in the work environment.	Managing Diversity in the Workplace		
i. Intervene in situations involving potential discrimination on the basis of race, age, sex, ethnicity, sexual orientation, and physical disability.			
j. Balance the needs of employees with organizational goals.	Orientation to Supervisory Skills		
k. Apply the agency's operating policies and procedures to the work environment.			
l. Practice core management functions of planning, organizing, controlling, performing, and leading.			

m.	Develop performance standards.	Performance Management System Training	All	Exp, TA
n.	Document performance and behavior.			
o.	Provide performance feedback to employees.			
p.	Enforce the agency's policies regarding the prevention of sexual harassment.	Sexual Harassment Prevention for Managers		
q.	Implement the agencies policies and procedures regarding employment	TNRCC Hiring Process		
r.	Observe federal and state regulations regarding the hiring process.			

Training Topics Worksheet
for
Modeling & Assessment Specialist V

Knowledge or Skill	Supporting Topic(s)	Team*	Source for Satisfying Topic*
1. Skill in applying modeling, statistical procedures, higher mathematics, and computer programming. a. Defend workmanship (reports and presentations). b. Participate in national technical workgroups, e.g. OTAG. c. Testify in hearings and/or trials. d. Run UAM base cases. e. Select study episodes. f. Write the Scope of Work for contracts. g. Evaluate contractor performance. h. Provide technical advice to the Commission via policy. i. Provide technical advice to the Commission via written and oral communications. j. Publish documents and present findings at conferences k. Run specific control scenarios. l. Run general control scenarios.		All	Exp

* Ed = Education (Academic) OJT = Structured On-the-Job Training Exp = Experience (Tenure)
PR = Professional Requirement MQ = Minimum Qualification TA = Training Academy

** EI = Emissions Inventory
MOPS = MOPS--Data Management, Statistical Sciences, and Air Pollution Meteorology
NSR = New Source Review Permits Modeling
SIP=State Implementation Plan Modeling

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m. Conduct air quality forecasting and analyses. n. Propose and negotiate grants. o. Develop border air quality control programs. p. Develop combustion strategies.		All	Exp
2. Knowledge of principles and practices of environmental science and applied science. a. Defend workmanship (reports and presentations). b. Participate in national technical workgroups, e.g. OTAG. c. Run UAM base cases. d. Select study episodes. e. Write the Scope of Work for contracts. f. Evaluate contractor performance. g. Provide technical advice to the Commission via policy. h. Provide technical advice to the Commission via written and oral communications. i. Publish documents and present findings at conferences. j. Run specific control scenarios. k. Run general control scenarios. l. Conduct air quality forecasting and analyses. m. Propose and negotiate grants. n. Develop border air quality control programs. o. Develop combustion strategies.		All	Exp

3.	Knowledge of applicable laws, regulations, and policies. a. Defend workmanship (reports and presentations). b. Participate in national technical workgroups, e.g. OTAG. c. Run UAM base cases d. Select study episodes. e. Write the Scope of Work for contracts. f. Evaluate contractor performance. g. Provide technical advice to the Commission via policy. h. Provide technical advice to the Commission via written and oral communications. i. Publish documents and present findings at conferences. j. Run specific control scenarios. k. Run general control scenarios. l. Conduct air quality forecasting and analyses. m. Propose and negotiate grants. n. Develop border air quality control programs. o. Develop combustion strategies.		All	Exp

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4. Knowledge of the state of the art in the specialty area and related specialties. a. Defend workmanship (reports and presentations). b. Participate in national technical workgroups, e g. OTAG. c. Run UAM base cases. d. Select study episodes. e. Write the Scope of Work for contracts. f. Evaluate contractor performance. g. Provide technical advice to the Commission via policy. h. Provide technical advice to the Commission via written and oral communications. i. Publish documents and present findings at conferences. j. Run specific control scenarios. k. Run general control scenarios. l. Conduct air quality forecasting and analyses. m. Propose and negotiate grants. n. Develop border air quality control programs. o. Develop combustion strategies.		All	Exp

5.	Skill in organizing and analyzing data, organizing and planning workloads, expressing ideas clearly and concisely, and training others. a. Defend workmanship (reports and presentations). b. Participate in national technical workgroups, e.g. OTAG. c. Run UAM base cases. d. Select study episodes. e. Write the Scope of Work for contracts. f. Evaluate contractor performance. g. Provide technical advice to the Commission via policy. h. Provide technical advice to the Commission via written and oral communications. i. Publish documents and present findings at conferences. j. Run specific control scenarios. k. Run general control scenarios. l. Conduct air quality forecasting and analyses. m. Propose and negotiate grants. n. Develop border air quality control programs. o. Develop combustion strategies.		All	Exp

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6. Skill in preparing technical reports and other appropriate documentation. a. Defend workmanship (reports and presentations). b. Participate in national technical workgroups, e.g. OTAG. c. Run UAM base cases. d. Select study episodes. e. Write the Scope of Work for contracts. f. Evaluate contractor performance. g. Provide technical advice to the Commission via policy. h. Provide technical advice to the Commission via written and oral communications. i. Publish documents and present findings at conferences. j. Run specific control scenarios. k. Run general control scenarios. l. Conduct air quality forecasting and analyses. m. Propose and negotiate grants. n. Develop border air quality control programs. o. Develop combustion strategies.		All	Exp

7.	Skill in using computers for word processing and database manipulation. a. Defend workmanship (reports and presentations). b. Participate in national technical workgroups, e.g. OTAG. c. Run UAM base cases. d. Select study episodes. e. Write the Scope of Work for contracts. f. Evaluate contractor performance. g. Provide technical advice to the Commission via policy. h. Provide technical advice to the Commission via written and oral communications. i. Publish documents and present findings at conferences. j. Run specific control scenarios. k. Run general control scenarios. l. Conduct air quality forecasting and analyses. m. Propose and negotiate grants. n. Develop border air quality control programs. o. Develop combustion strategies.		All	Exp

B162

8. Skill in following policies and procedures, as well as planning and developing new policies and procedures, as necessary. a. Defend workmanship (reports and presentations). b. Participate in national technical workgroups, e.g. OTAG. c. Run UAM base cases. d. Select study episodes. e. Write the Scope of Work for contracts. f. Evaluate contractor performance. g. Provide technical advice to the Commission via policy. h. Provide technical advice to the Commission via written and oral communications. i. Publish documents and present findings at conferences. j. Run specific control scenarios. k. Run general control scenarios. l. Conduct air quality forecasting and analyses. m. Propose and negotiate grants. n. Develop border air quality control programs. o. Develop combustion strategies.		All	Exp

9.	Skill in representing the agency as an expert witness on matters not requiring registration as a professional engineer. a. Defend workmanship (reports and presentations). b. Participate in national technical workgroups, e.g. OTAG. c. Run UAM base cases. d. Select study episodes. e. Write the Scope of Work for contracts. f. Evaluate contractor performance. g. Provide technical advice to the Commission via policy. h. Provide technical advice to the Commission via written and oral communications. i. Publish documents and present findings at conferences. j. Run specific control scenarios. k. Run general control scenarios. l. Conduct air quality forecasting and analyses. m. Propose and negotiate grants. n. Develop border air quality control programs. o. Develop combustion strategies.		All	Exp
10.	Skill in directing and supervising staff members. a. Identify strengths and weaknesses of team members and assist in developing technical and communication skills. b. Lead meetings with internal and external customers.		All	Exp

B164

11. Skill in applying federal, state, and agency laws, policies, and procedures to work-related issues. a. Exercise responsibilities in employing and supervising persons with disabilities. b. Sensitize employees to appropriate etiquette in working with persons with disabilities. c. Implement agency policies regarding career ladders. d. Resolve employee issues regarding career ladders. e. Develop Job Analysis Worksheets (JAW) for job classifications. f. Develop an Employee Performance Plan. g. Administer and document disciplinary actions in accordance with agency policies. h. Develop practical methods for overcoming cultural barriers in the work environment. i. Intervene in situations involving potential discrimination on the basis of race, age, sex, ethnicity, sexual orientation, and physical disability. j Balance the needs of employees with organizational goals. k. Apply the agency's operating policies and procedures to the work environment. l. Practice core management functions of planning, organizing, controlling, performing, and leading.		All	Exp

	m. Develop performance standards. n. Document performance and behavior. o. Provide performance feedback to employees. p. Enforce the agency's policies regarding the prevention of sexual harassment. q. Implement the agencies policies and procedures regarding employment r. Observe federal and state regulations regarding the hiring process.		All	Exp
12.	Skill in communicating technical information within the organization boundary and with customers; delivering presentations at technical functions and meetings; and composing reports such as updates, briefs, summaries, and memoranda. a. Facilitate team meetings using appropriate techniques for assuring attention to task and relationships. b. Build, lead, and evaluate teams formed to achieve specific results within resource constraints. c. Identify sources of conflict. d. Practice communication skills. e. Mediate disputes using an appropriate model. f. Assist in developing team goals and objectives. g. Propose policies relating to air pollution. h. Prepare responses to legislative initiatives and public inquiries.	Facilitating Groups Leading, Building, and Evaluating High Performance Teams Excellence in Leadership Mediation Skills (Advanced) Facilitation Skills Management Development Course	All	Exp

Environmental Investigator

ENVIRONMENTAL SPECIALIST II (ENVIRONMENTAL INVESTIGATOR I)

CLASS NO. 2681A
PAY GROUP B5

GENERAL DESCRIPTION

Performs work at the trainee level in the fields of air, water, or waste pollution. Work is performed under close supervision with minimal latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Prepares draft correspondence.
Operates technical equipment and various detection instruments.
Makes preliminary evaluations of samples and data obtained during inspections.
Assists in routine inspections, surveys, and complaint investigations, and prepares technical reports and practical recommendations regarding findings.
Assists in collecting samples and conducting field studies.
Assists in the preparation of environmental seminars and educational presentations.
Performs related work as assigned.

MINIMUM QUALIFICATIONS

Ninety semester hours from an accredited college or university.

One year of full-time experience in the field of environmental activities which are directly related to the examples of work performed may be substituted for each year (30 semester hours) of the required education.

OR

Three years of full-time TNRCC experience in an administrative capacity* or in clerical work in environmental investigations or similar program area.

*Administrative capacity is work where primary duties consist of performing administrative tasks of an office, excluding work such as clerical, secretarial, sales, equipment operations, and manual labor.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of the operation and care of scientific equipment and of scientific principles and techniques.
Ability to read and understand state and federal laws and regulations; to communicate effectively; to exercise good judgment; to make technically sound decisions; to function as a member of a team; and to use word processing, spreadsheet, and database computer programs.

ENVIRONMENTAL QUALITY SPECIALIST III (ENVIRONMENTAL INVESTIGATOR II)

CLASS NO. 4062A
PAY GROUP 15

GENERAL DESCRIPTION

This is the entry point of the Environmental Investigator career ladder. Performs routine work in the fields of air, water, or waste pollution. Work is performed under moderate supervision with limited latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Conducts technical inspections and surveys, and evaluate the results.
Conducts routine follow-up inspections.
Prepares technical papers on studies of this type of work.
Prepares technical reports and recommendations regarding findings.
Prepares draft correspondence.
Distributes educational materials concerning the program.
Operates and performs minor maintenance of technical equipment and various detection instruments.
Assists in the collection and analysis of environmental samples.
Assists in the preparation of educational presentations as required.
Performs related work as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from an accredited college or university.

One year of full-time experience in the field of environmental activities directly related to the examples of work performed may be substituted for each year (30 semester hours) of the required education.

OR

Two years of full-time TNRCC experience as an Environmental Investigator I.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of applicable local, state and federal ordinances and laws; of environmental protection practices and techniques; of scientific principles and techniques; and of the operation and care of scientific detection equipment.
Ability to communicate effectively; to exercise good judgment; to make technically sound decisions; to function as a member of a team; and to use word processing, spreadsheet, and database computer programs.

ENVIRONMENTAL QUALITY SPECIALIST IV (ENVIRONMENTAL INVESTIGATOR III)

CLASS NO. 4063A
PAY GROUP 17

GENERAL DESCRIPTION

Performs moderately complex technical work in the fields of air, water or waste pollution. Work is performed under general supervision with moderate latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Conducts and leads technical inspections, surveys, follow-up investigations and studies, and prepares reports.
Conducts environmental monitoring and may lead a team conducting such monitoring; prepares technical papers on studies of this type of work.
Participates in special projects and may direct the efforts of other environmental investigators in such projects.
Reviews routine plans and draft permits.
Operates, maintains, and calibrates technical equipment used in the field of environmental pollution.
Provides limited technical assistance to the public, regulated community and other interested groups.
Provides advice to interested parties regarding the application of appropriate regulations.
Assists in the training of environmental investigators.
May conduct educational presentations on general environmental subjects.
Performs related work as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from an accredited college or university plus one year of full-time experience in environmental activities directly related to the examples of work performed.

One year of full-time experience in the field of environmental activities directly related to the examples of work performed may be substituted for each year (30 semester hours) of the required education.

OR

One year of full-time TNRCC experience as an Environmental Investigator II.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of applicable local, state and federal ordinances and laws; of environmental principles in the field of industrial and municipal solid waste management, air pollution, water pollution or water resources; and of environmental monitoring techniques and analysis.
Ability to operate and maintain complex technical equipment and various detection instruments; to communicate effectively; to supervise and plan group efforts in environmental activities; to review reports and studies for technical correctness; to exercise good judgment; to make technically sound decisions; to function as a member of a team; and to use word processing, spreadsheet, and database computer programs.

ENVIRONMENTAL QUALITY SPECIALIST V (ENVIRONMENTAL INVESTIGATOR IV)

CLASS NO. 4064A
PAY GROUP 19

GENERAL DESCRIPTION

This is the top of the Environmental Investigator career ladder. Performs or manages complex technical work in the fields of air, water, or waste pollution. Work involves performing or managing the work of others in complex environmental investigations, inspections, surveys, studies, or other environmental projects; writing and reviewing highly technical reports; providing advice and complex technical assistance; providing scientific or technical public education programs; interpreting rules, regulations, and environmental policies. Reviews complex plans and draft permits, interprets scientific data and makes appropriate recommendations. Work is performed under minimal supervision with considerable latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Performs or manages complex investigations, inspections, surveys, follow-up investigations, studies, and reviews regarding facility compliance or permit activities.
Plans and manages projects and the work of other employees on those projects in air, water, and waste pollution activities.
Prepares technical articles and papers for presentation to professional groups or reviews reports from environmental investigators.
Reviews collected data, maintains appropriate files, prepares reports, and makes recommendations as required.
Reviews complex plans and draft permits.
Interprets statutes, regulations, and policy for applicability to individual situations.
Advises and provides complex technical assistance to representatives of the public, the regulated community, and professional groups.
Analyzes and evaluates special conditions and situations involving environmental problems.
Operates, maintains, and calibrates technical equipment used in the field of environmental pollution.
Assists in, or trains other environmental investigators.
May be responsible for activities relating to the monitoring of environmental contamination and evaluation of data.
May use of supervise the use of various instruments in sampling, collecting, and analyzing information and data.
May interact with federal, state or local governments, media, regulated community, and the general public.
May prepare scientific, technical, or other publications related to environmental topics.
Performs related work as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from an accredited college or university plus three years of full-time experience in the field of environmental activities directly related to the examples of work performed.

One year of full-time experience in the field of environmental activities which are directly related to the examples of work performed may be substituted for each year (30 semester hours) of the required education.

OR

A master's degree from an accredited college or university with a major in engineering, basic science, math, environmental science, computer science or a related field, plus two years of full-time experience in the field of environmental activities directly related to the examples of work performed.

OR

Two years of full-time TNRCC experience as an Environmental Investigator III.

ENVIRONMENTAL QUALITY SPECIALIST V (ENVIRONMENTAL INVESTIGATOR IV)

CLASS NO. 4064A
PAY GROUP 19

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of, and ability to, interpret applicable local, state, and federal laws, regulations, and policies.

Knowledge of the organization and structure of environmental protection organizations; of environmental and/or engineering principles in the field of industrial and municipal solid waste management, air pollution, water pollution or water resources; and of environmental monitoring techniques and analysis.

Ability to prepare and present technical papers and studies to professional groups; to manage and plan group efforts in environmental activities; to operate and maintain complex technical equipment and various detection instruments; to communicate effectively under stressful conditions with the public, regulated community, and professional groups; to review reports and studies for technical correctness; to exercise good judgment; to make technically sound decisions; to function as a member of a team; to use word processing, spreadsheet, and database computer programs; and to plan and develop policies and procedures.

ENVIRONMENTAL QUALITY SPECIALIST VI (ENVIRONMENTAL INVESTIGATOR V)

CLASS NO. 4065A
PAY GROUP 21

GENERAL DESCRIPTION

Performs highly complex technical work at a professional level in the fields of air, water, or waste pollution. Work involves conducting, organizing, managing, or coordinating programs and activities in highly complex environmental investigations or projects; initiating special studies; serving as a technical resource; conducting public meetings; reviewing and making recommendations regarding complex permit applications; providing complex technical assistance and information to the public, the regulated community, other governmental agencies, public officials, and the news media; determining compliance with schedules, orders, or permit requirements; planning or assigning work and/or directly supervising other employees. Ensures that all work assignments are carried out in accordance with applicable rules, regulations, policies, and/or standards of good scientific and/or engineering practices. Work is performed under direction with extensive latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Performs or manages highly complex investigations and reviews regarding facility compliance or permit activities.
Organizes, assigns, supervises, and coordinates programs, projects, and activities in the planning and execution of environmental projects.
Serves as a mentor or trainer to other environmental investigators.
Evaluates data for adherence to specified requirements in applicable laws and regulations and reports from environmental investigators.
Interprets statutes, regulations, and policy for applicability to individual situations.
Reviews collected data, maintains appropriate files, prepares reports, and makes recommendations as required.
Reviews and approves staff recommendations regarding highly complex plans and draft permits.
Edits reports and special publications; aids in the preparation of program budget requests.
Advises and provides highly complex technical assistance to representatives of the public, the regulated community, and professional groups.
Interacts with federal, state, or local governments, media, regulated community, and the general public.
May aid in the preparation of program budget requests.
May plan, assign, and/or supervise the work of other employees, including the direct supervision of staff through performance evaluations.
May be responsible for or supervise activities relating to the monitoring of environmental contamination and evaluation of data.
May use or supervise use of various instruments in sampling, collecting, and analyzing information and data.
May initiate or recommend special studies, reduce data to specific findings, and recommend resolutions.
May conduct public meetings and group discussions relative to environmental problems.
May prepare educational materials including training and operational manuals used in implementing a specific environmental program.
May prepare scientific, technical, or other publications related to environmental topics.
May review and prepare recommendations regarding applications for complex permits for air, water, or waste projects.
May assist in the formulation of rules, regulations and policies.
Performs related duties as assigned.

MINIMUM QUALIFICATIONS

Two years of full-time TNRCC experience as an Environmental Investigator IV*.

*Progression to the Environmental Investigator V (pay group 21) is strictly tied to the business needs of the agency.

KNOWLEDGE, SKILLS, AND ABILITIES

ENVIRONMENTAL QUALITY SPECIALIST VI (ENVIRONMENTAL INVESTIGATOR V)

CLASS NO. 4065A
PAY GROUP 21

Knowledge of environmental and/or engineering principles in the fields of industrial and municipal solid waste management, air pollution, water pollution, or water resources and of environmental monitoring techniques and analysis; and in the application of personnel management principles.
Ability to interpret applicable local, state, and federal laws, regulations, and policies to individual situations; to interact with federal, state, or local governments, media, the regulated community, and the general public and provide advice on highly complex technical issues to representatives of the public, the regulated community, and professional groups; to prepare and present technical papers and studies to professional groups; to supervise and plan group efforts in environmental activities; to operate and maintain complex technical equipment and various detection instruments; to communicate effectively under stressful conditions with the public, the regulated community, and professional groups; to review reports and studies for technical correctness; to exercise good judgment; to make technically sound decisions; to function as a member of a team; to use word processing, spreadsheet, and database computer programs; to plan and develop policies and procedures; and to train personnel on highly complex technical aspects of the job.

Training Topics Worksheet
for
(Environmental Investigator I)

Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1. Knowledge of the operation and care of scientific equipment: a. Calibrate equipment. b. Identify faulty equipment. c. Follow referral procedures for maintenance. d. Use equipment according to established standards.		Exp, OJT, TA
2. Knowledge of scientific principles and techniques: a. Use proper classic scientific methods. b. Perform calculations correctly. c. Perform evidence collection according to standardized procedures (sampling). d. Prepare and maintain field notebook. e. Identify proper equipment or method for given task. f. Make detailed field observations.		Exp, OJT
3. Skill in reading and understanding state and federal laws and regulations: a Distinguish structure and format of rules and regulations. b. Distinguish between state, federal, and permit applicable rules and regulations.		Exp, OJT

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

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4. Skill in communicating effectively: a. Introduce oneself correctly to inspection site staff . b. Determine when and who to refer information requests made by the: i. Regulated community. ii. Public. iii. Staff. c. Attend meetings with regulated community and TNRCC staff and observe interactions.		Exp, OJT, TA
5. Skill in exercising good judgement: a. Follow personal safety and protection guidelines. b. Use state equipment properly. c. Follow basic right of entry procedures including what waivers or other documents not to sign. d. Determine when and who to refer information requests made by the: i. Regulated community. ii. Public. iii. Staff.		Exp, OJT, TA
6. Skill in making technically sound decisions: a. Use equipment according to guidance. b. Follow TNRCC policies and procedures. c. Determine when and who to refer issues following established guidelines. d. Follow correct evidence collection procedures. e. Determine applicable regulations.		Exp, TA

7.	Skill in functioning as a member of a team: a. Identify role within all levels of the agency. b. Contribute ideas and solutions when possible.		Exp, TA
8.	Skill in using word processing, spreadsheet, and database computer programs: a. Use baselined software.		Exp, TA

Training Topics Worksheet
for
(Environmental Investigator II)

Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1. Knowledge of applicable local, state, and federal ordinances and laws: a. Reference applicable rules and regulations. b. Apply to appropriate situation.		Exp
2. Knowledge of environmental protection practices and techniques: a. Conduct basic inspections. b. Identify basic processes employed by industries and regulated community. c. Identify basic process control equipment (what it looks like, how it functions, when is it working improperly. d. Utilize risk-based assessment. e. Identify appropriate remediation techniques.		Exp, OJT, TA
3. Knowledge of scientific principles and techniques: a Assist in required analysis.		Exp
4. Knowledge of the operation and care of scientific detection equipment. a. Perform some minor preventive maintenance.		Exp, OJT

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B182

5. Skill in communicating effectively: a. Conduct entry and exit interviews. b. Participate in enforcement conferences; describe site inspection observations. c. Provide technical assistance to regulated community. d. Write reports and other correspondence according to technical and business writing standards. e. Interact with media according to TNRCC guidelines. f. Act as a witness according to TNRCC guidelines.		Exp, OJT, TA
6. Skill in exercising good judgement: a. Identify personal hazards. b. Answer some questions previously required to be referred.		Exp
7. Skill in making technically sound decisions: a. Make some decisions previously required to be referred. b. Recognize own level of expertise.		Exp
8. Skill in functioning as a member of a team: a. Contribute more. b. Assume more responsibility.		Exp, TA
9. Skill in using word processing, spreadsheet, and database computer programs.		Exp

Training Topics Worksheet
for
(Environmental Investigator III)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1	Knowledge of applicable local, state and federal ordinances and laws: a. Locate resources and perform research using in-house and outside resources including written interpretations. b. State the background and intent of applicable regulations and rules.		Exp
2.	Knowledge of environmental principles in the field of industrial and municipal solid waste management, air pollution, water pollution or water resources: a. State the theoretical background of industrial processes and technology. b. Identify available environmental control devices. c. State how environmental control devices work.		Exp
3.	Knowledge of environmental monitoring techniques and analysis: a. Determine if monitoring performed by regulated. entity is in compliance. b. Perform monitoring and analysis of regulated entities.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B184

4.	Skill in operating and maintaining complex technical equipment and various detection instruments: a. Perform preventive maintenance on equipment. b. Trouble shoot equipment. c. Take corrective action on defective equipment. d. Operate equipment correctly.		Exp
5.	Skill in communicating effectively: a. Give presentations: i. Technical. ii. Public outreach. iii. Public hearings. iv. Public meetings. v. Enforcement conferences. b. Serve as an expert witness.		Exp
6.	Skill in supervising and planning group efforts in environmental activities: a. Assume lead role on inspections: i. Coordinate interviews. ii. Assign roles. iii. Identify multimedia issues. b. Conduct meetings. c. Act as mentor to less experienced inspectors.		Exp
7.	Skill in reviewing reports and studies for technical correctness: a. Review: i. Reports by regulated community. ii. Permits. b. Provide peer review without alienating peer.		Exp
8.	Skill in exercising good judgement: a. Assess ideas submitted by regulated community or public and explain process for new ideas.		Exp
9.	Skill in making technically sound decisions.		Exp

10.	Skill in functioning as a member of a team.		Exp
11.	Skill in using word processing, spreadsheet and database computer programs.		Exp

Training Topics Worksheet
for
(Environmental Investigator IV)

Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1 Knowledge of and ability to interpret applicable local, state, and federal laws, regulations, and policies: a. Determine compliance/non-compliance. b. Make enforcement referral determination. c. Compare state and federal regulations and determine which apply to situation. d. Ask and answer questions on interpretation of state and federal regulations.		Exp
2. Knowledge of the organization and structure of environmental protection organizations: a. Describe the purpose and organization of: i. Other state and federal agencies having any kind of jurisdiction over environmental issues. ii. Civic groups. iii. Formal environmental groups. iv. Local programs.		Exp
3. Knowledge of environmental and/or engineering principles in the field of industrial and municipal solid waste management, air pollution, water pollution or water resources.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

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4.	Knowledge of environmental monitoring techniques and analysis.		Exp
5.	Skill in preparing and presenting technical papers and studies to professional groups: b. Public speaking. c. Presentation skills: i. Preparation. ii. Visual aids. d. Independent research. e. Multimedia knowledge outside main area of expertise. f. **Hot issues.**		Exp
6.	Skill in managing and planning group efforts in environmental activities: a. Assume lead role in multimedia inspections. b. Mentor less experienced inspectors. c. Generate new ideas. d. Participate in team and committee work. e. Provide input to regional workplan. f. Coordinate outside projects. g. Provide peer review without alienating peers.		Exp
7.	Skill in operating and maintaining complex technical equipment and various detection instruments: a. Mentor less experience inspectors. b. Train all preventive maintenance. c. Repair some instrumentation.		Exp

8.	Skill in communicating effectively under stressful conditions with the public, regulated community, and professional groups: a. Demonstrate high level of diplomacy. b. Deal with hostile individuals one-on-one and in public meetings. c. Deal with intimidating conditions one-one and in meetings. d. Deal with stress.		Exp
9.	Skill in reviewing reports and studies for technical correctness: a. Perform final review. b. Perform diplomatic peer review. c. Demonstrate leadership skills. d. Assume responsibility for office when program manager away.		Exp
10.	Skill in exercising good judgement.		Exp
11.	Skill in making technically sound decisions.		Exp
12.	Skill in functioning as a member of a team: a. Mentor less experienced inspectors. b. Demonstrate team leadership skills.		Exp
13.	Skill in using word processing, spreadsheet, and database computer programs.		Exp
14.	Skill in planning and developing policies and procedures: a. Describe rule- and policy-making process. b. Demonstrate team leadership skills.		Exp

Training Topics Worksheet
for
(Environmental Investigator V)

Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1. Knowledge of environmental and/or engineering principles in the fields of industrial and municipal solid waste management, air pollution, water pollution, or water resources.	Newest technologies (professional and scientific conferences and seminars)	Exp
2. Knowledge of environmental monitoring techniques and analysis.		Exp
3. Knowledge of application of personnel management principles.		Exp
4. Skill in interpreting applicable local, state, and federal laws, regulations, and policies to individual situations.		Exp
5. Skill in interacting with federal, state, or local governments, media, the regulated community, and the general public.		Exp
6. Skill in providing advice on highly complex technical issues to representatives of the public, the regulated community, and professional groups.		Exp
7. Skill in preparing and presenting technical papers and studies to professional groups.		Exp
8. Skill in supervising and planning group efforts in environmental activities.	Project Management Tools and Techniques	Exp, TA

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

9.	Skill in operating and maintaining complex technical equipment and various detection instruments.		Exp
10.	Skill in communicating effectively under stressful conditions with the public, regulated community, and professional groups.	Advanced presentation skills Advanced people skills Advanced communication skills	Exp
11.	Skill in reviewing reports and studies for technical correctness.		Exp
12.	Skill in exercising good judgement.		Exp
13.	Skill in making technically sound decisions.		Exp
14.	Skill in functioning as a member of a team.		Exp
15.	Skill in using word processing, spreadsheet, and database computer programs.		Exp
16.	Skill in planning and developing policies and procedures: a. Draft procedures for field ops rule making. b. Assess regulator initiatives for impact on field ops.		Exp
17.	Skill in training personnel on highly complex technical aspects of the job.	Instructional systems design skills	Exp

Environmental Permit Specialist and Assistant

ENVIRONMENTAL PERMIT ASSISTANT II
(Engineering Assistant II)

Class No. ___
Group 15

GENERAL DESCRIPTION

Performs basic environmental quality and engineering work in one of the Agency's environmental permitting programs. Work involves performing permitting activities related to pollution control including wastewater/sludge permitting, air quality permitting, industrial and hazardous waste permitting, and municipal solid waste permitting Ensures that all assignments are performed according to standards of good scientific and engineering practices Works under a high level of supervision with moderate latitude for the use of initiative and independent judgement.

EXAMPLES OF WORK PERFORMED

Reviews permit applications and prepares draft permit packages to comply with state and federal laws and regulations and good engineering judgement.
Performs engineering calculations
Reviews technical reports associated with permitting activities at the Agency and provides recommendations as appropriate.
Provides basic regulatory and technical information to the regulated community.
Reviews data, applications, calculations, and reports, maintains appropriate files, prepares reports, and makes recommendations as appropriate.
May work with computer models.
Performs related work as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from a recognized institution of higher education with a major in engineering, physical science, environmental science, or related field.

Passing the Fundamentals of Engineering Examination may be substituted for six months of experience

CAREER LADDER PROGRESSION

This is the entry point to the TNRCC career ladder for Environmental Permit Specialists.

KNOWLEDGE, SKILLS, AND ABILITIES

Ability to communicate technical information to a technical audience.
Ability to evaluate or analyze technical data and make recommendations
Knowledge and skill in the use of various scientific instruments and computer software programs.
Ability to effectively communicate in writing.

ENVIRONMENTAL PERMIT ASSISTANT III
(Engineering Assistant III)

Class No. ___
Group 16

GENERAL DESCRIPTION

Performs basic environmental quality and engineering work in one of the Agency's environmental permitting programs Work involves performing permitting activities related to pollution control including wastewater/sludge permitting, air quality permitting, industrial and hazardous waste permitting, and municipal solid waste permitting Ensures that all assignments are performed according to standards of good scientific and engineering practices. Works under a high level of supervision with moderate latitude for the use of initiative and independent judgement.

EXAMPLES OF WORK PERFORMED

Reviews permit applications and prepares draft permit packages to comply with state and federal laws and regulations and good engineering judgement.
Performs technical engineering work.
Reviews technical reports associated with permitting activities at the Agency and provides recommendations as appropriate.
May assist in the development of guidance documents
Provides basic regulatory and technical information to the regulated community.
May provide testimony in contested case hearings.
May assist in policy and rule development activities.
Reviews data, applications, calculations, and reports, maintains appropriate files, prepares reports, and makes recommendations as appropriate.
May work with technical computer models
Performs related work as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from a recognized institution of higher education with a major in engineering, physical science, environmental science, or related field, plus one (1) year of full-time experience in performing engineering, technical, or related assignment in environmental permitting or control activities

Passing the Fundamentals of Engineering Examination may be substituted for six months of experience. Registration as a Professional Engineer with a valid Texas License may be substituted for one year of experience. A masters degree or a doctoral degree from a recognized institution of higher education in the specified fields may each be substituted for one year of experience with a maximum substitution of one year.

CAREER LADDER PROGRESSION

One year of full-time TNRCC experience as an Environmental Permit Assistant II.

KNOWLEDGE, SKILLS, AND ABILITIES

Ability to apply engineering techniques and concepts to basic permitting issues
Ability to communicate technical information to a technical audience.
Ability to evaluate or analyze technical data and make recommendations.
Knowledge and skill in the use of various scientific instruments and computer software programs.
Ability to effectively communicate in writing.
Knowledge of selected local, state, and federal environmental laws, regulations, and policies.
Ability to provide a basic analysis of permit applications.
Ability to operate routine computer applications used by the permitting division.

ENVIRONMENTAL PERMIT SPECIALIST I
(Engineering Specialist I)

Class No. ___
Group 17

GENERAL DESCRIPTION

Performs routine environmental quality and engineering work in one of the Agency's environmental permitting programs Work involves performing permitting activities related to pollution control including wastewater/sludge permitting, air quality permitting, industrial and hazardous waste permitting, and municipal solid waste permitting Ensures that all assignments are performed according to standards of good scientific and engineering practices. Works under general supervision with moderate latitude for the use of initiative and independent judgement.

EXAMPLES OF WORK PERFORMED

Reviews moderately complex permit applications and prepares draft permit packages to comply with state and federal laws and regulations and good engineering judgement.
Performs engineering calculations.
Reviews technical reports associated with permitting activities at the Agency and provides recommendations as appropriate.
Develops guidance documents.
May provide public outreach efforts, representing the Agency at seminars and other public forums.
Provides technical advice to, and interacts with, federal, state, and local governments, industry representatives, the general public, legislature, and other programs of the agency.
May provide testimony in contested case hearings
May assist in policy and rule development activities
Reviews data, applications, and reports, maintains appropriate files, prepares reports, and makes recommendations as appropriate.
May work with computer models.
Performs related work as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from a recognized institution of higher education with a major in engineering, physical science, environmental science, or related field, plus two (2) years of full-time experience in performing engineering, technical, or related assignment in environmental permitting or control activities

Passing the Fundamentals of Engineering Examination may be substituted for six months of experience. Registration as a Professional Engineer with a valid Texas License may be substituted for one year of experience A masters degree or a doctoral degree from a recognized institution of higher education in the specified fields may each be substituted for one year of experience with a maximum substitution of two years.

CAREER LADDER PROGRESSION

One year of full-time TNRCC experience as an Environmental Permit Assistant III.

KNOWLEDGE, SKILLS, AND ABILITIES

Ability to apply engineering techniques and concepts to moderate to routine permitting issues.
Knowledge of applicable local, state, and federal environmental laws, regulations, and policies.
Ability to provide a thorough analysis of permit applications
Ability to complete multiple projects within the guidelines of the permitting division.
Knowledge of the agency's operations and organization, and interaction of divisions.
Knowledge and skill in the computer applications used by the permitting division
Ability to communicate technical information effectively to a variety of audiences.
Knowledge of field and laboratory studies and protocols.
General knowledge of the application of environmental controls
Ability to prepare concise reports and technical papers.

ENVIRONMENTAL PERMIT SPECIALIST II
(Engineering Specialist II)

Class No. ___
Group 18

GENERAL DESCRIPTION

Performs routine to moderately complex environmental quality and engineering work in one of the Agency's environmental permitting programs. Work involves planning, coordinating, and performing permitting activities related to pollution control including wastewater/sludge permitting, air quality permitting, industrial and hazardous waste permitting, and municipal solid waste permitting. Ensures that all assignments are performed according to standards of good scientific and engineering practices. Works under general to limited supervision with moderate latitude for the use of initiative and independent judgement.

EXAMPLES OF WORK PERFORMED

Reviews moderately complex permit applications and prepares draft permit packages to comply with state and federal laws and regulations and good engineering judgement.
Performs engineering calculations.
Reviews technical reports associated with permitting activities at the Agency and provides recommendations as appropriate.
Develops guidance documents.
May provide public outreach efforts, representing the Agency at seminars and other public forums.
Provides technical advice to, and interacts with, federal, state, and local governments, industry representatives, the general public, legislature, and other programs of the agency.
May provide testimony in contested case hearings.
May assists in policy and rule development activities
Reviews data, applications, calculations, and reports, maintains appropriate files, prepares reports, and makes recommendations as appropriate.
Uses and evaluates the results of computer models.
Performs related work as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from a recognized institution of higher education with a major in engineering, physical science, environmental science, or related field, plus three (3) years of full-time experience in performing engineering, technical, or related assignment in environmental permitting or control activities.

Passing the Fundamentals of Engineering Examination may be substituted for six months of experience. Registration as a Professional Engineer with a valid Texas License may be substituted for one year of experience. A masters degree or a doctoral degree from a recognized institution of higher education in the specified fields may each be substituted for one year of experience with a maximum substitution of two years.

CAREER LADDER PROGRESSION

One year of full-time TNRCC experience as an Environmental Permit Specialist I.

KNOWLEDGE, SKILLS, AND ABILITIES

Ability to apply engineering techniques and concepts to moderate to complex permitting issues.
Knowledge of applicable local, state, and federal environmental laws, regulations, and policies.
Ability to provide a thorough analysis of permit applications.
Ability to complete multiple projects within the guidelines of the permitting division.
Knowledge of the agency's operations and organization, and interaction of divisions.
Knowledge and skill in the computer applications used by the permitting division.
Ability to communicate technical information effectively to a variety of audiences.
Knowledge of field and laboratory studies and protocols.
Knowledge and skill in the application of environmental controls.
Ability to prepare concise reports and technical papers.

ENVIRONMENTAL PERMIT SPECIALIST III
(Engineering Specialist III)

Class No. ___
Group 19

GENERAL DESCRIPTION

Performs moderately complex environmental quality and engineering work in one of the Agency's environmental permitting programs. Work involves planning, coordinating, leading, and performing permitting activities related to pollution control including wastewater/sludge permitting, air quality permitting, industrial and hazardous waste permitting, and municipal solid waste permitting Ensures that all assignments are performed according to standards of good scientific and engineering practices Works under limited supervision with considerable latitude for the use of initiative and independent judgement.

EXAMPLES OF WORK PERFORMED

Reviews moderately complex permit applications and prepares draft permit packages to comply with state and federal laws and regulations and good engineering judgement
Performs engineering calculations and interprets results as to their impact on the permit and the environment.
Reviews technical reports associated with permitting activities at the Agency and provides recommendations as appropriate.
Develops guidance documents and may prepare scientific, technical, or other publications related to air/water pollution control, which assist the regulated community and/or the general public.
Provides public outreach efforts, representing the Agency at seminars and other public forums.
Provides technical advice to, and interacts with, federal, state, and local governments, industry representatives, the general public, legislature, and other programs of the agency
May provide testimony in contested case hearings.
Assists in policy and rule development activities.
Reviews data, applications, calculations, and reports, maintains appropriate files, prepares reports, and makes recommendations as appropriate.
Uses and evaluates the results of computer models
Performs related work as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from a recognized institution of higher education with a major in engineering, physical science, environmental science, or related field, plus four (4) years of full-time experience in performing engineering, technical, or related assignment in environmental permitting or control activities.

Passing the Fundamentals of Engineering Examination may be substituted for six months of experience. Registration as a Professional Engineer with a valid Texas License may be substituted for one year of experience. A masters degree or a doctoral degree from a recognized institution of higher education in the specified fields may each be substituted for one year of experience with a maximum substitution of two years.

CAREER LADDER PROGRESSION

One year of full-time TNRCC experience as an Environmental Permit Specialist II.

KNOWLEDGE, SKILLS, AND ABILITIES

Ability to apply engineering techniques and concepts to complex permitting programs
Thorough knowledge of applicable local, state, and federal environmental laws, regulations, and policies
Ability to provide a thorough analysis of permit applications.
Ability to complete multiple projects within the guidelines of the permitting division.
Knowledge of the agency's operations and organization, and interaction of divisions.
Knowledge and skill in the computer applications used by the permitting division.
Ability to communicate technical information effectively to a variety of audiences.
Understanding and the ability to interpret field and laboratory studies and protocols.
Knowledge and skill in the application of environmental controls.
Ability to prepare concise reports and technical papers.

ENVIRONMENTAL PERMIT SPECIALIST IV
(Engineering Specialist IV)

Class No.____
Group 20

GENERAL DESCRIPTION

Performs complex environmental quality and engineering work in one of the Agency's environmental permitting programs Work involves planning, coordinating, leading, and performing permitting activities related to pollution control including wastewater/sludge permitting, air quality permitting, industrial and hazardous waste permitting, and municipal solid waste permitting Ensures that all assignments are performed according to standards of good scientific and engineering practices. Works under minimal supervision with considerable latitude for the use of initiative and independent judgement.

EXAMPLES OF WORK PERFORMED

Reviews complex permit applications and prepares highly technical draft permit packages to comply with state and federal laws/regulations and good engineering judgement.
Performs engineering calculations and interprets results as to their impact on the permit and the environment
Reviews technical reports associated with permitting activities at the Agency and provides recommendations as appropriate.
Develops guidance documents and may prepare scientific, technical, or other publications related to air/water pollution control, which assists the regulated community and/or the general public
Provides public outreach efforts, representing the Agency at seminars and other public forums.
Provides technical advice to, and interacts with, federal, state, and local governments, industry representatives, the general public, legislature, and other programs of the agency.
May provide testimony in contested case hearings
May plan, review, and/or coach the work of other employees.
Provides expertise during policy and rule development activities and may act as lead in development of policy and rules.
Reviews data, applications, calculations, and reports, maintains appropriate files, prepares reports, and makes recommendations as appropriate.
May initiate special studies, reduce facts to specific findings and recommend resolutions
Uses and evaluates results of computer models.
Performs related work as assigned

MINIMUM QUALIFICATIONS

A bachelor's degree from a recognized institution of higher education with a major in engineering, physical science, environmental science, or related field, plus six (6) years of full-time experience in performing engineering, technical, or related assignment in environmental permitting or control activities

Passing the Fundamentals of Engineering Examination may be substituted for six months of experience Registration as a Professional Engineer with a valid Texas License may be substituted for one year of experience. A masters degree or a doctoral degree from a recognized institution of higher education in the specified fields may each be substituted for one year of experience with a maximum substitution of two years.

CAREER LADDER PROGRESSION

Two years of full-time TNRCC experience as an Environmental Permit Specialist III This position is the top of the career ladder progression.

KNOWLEDGE, SKILLS, AND ABILITIES

Ability to apply engineering techniques and concepts to complex permitting programs.
Thorough knowledge of applicable local, state, and federal environmental laws, regulations, and policies.
Ability to provide a thorough analysis of permit applications.
Ability to complete multiple projects within the guidelines of the permitting division.
Thorough knowledge of the agency's operations and organization, and interaction of divisions.
General knowledge of multimedia permitting and other agency environmental programs
Knowledge and skill in the computer applications used by the permitting division.
Ability to plan, review, and/or coach the technical work of others
Ability to communicate technical information effectively to a variety of audiences
Understanding and the ability to interpret field and laboratory studies and protocols

Knowledge and skill in the application of environmental controls
Ability to prepare concise reports and technical papers

ENVIRONMENTAL PERMIT SPECIALIST V
(State Classification Title To Be Determined)

Class No. __
Group 21

GENERAL DESCRIPTION

Performs highly advanced environmental quality and engineering work in one of the Agency's environmental permitting programs. Work involves planning, coordinating, leading, and performing permitting activities related to pollution control including wastewater/sludge permitting, air quality permitting, industrial & hazardous waste permitting, and municipal solid waste permitting. Ensures that all assignments are performed according to standards of good scientific and engineering practices Works under direction with extensive latitude for the use of initiative and independent judgement. This position is designed for non-supervisory staff

EXAMPLES OF WORK PERFORMED

Reviews complex permit applications and prepares highly technical draft permit packages to comply with state and federal laws/regulations and good engineering judgement.
Performs engineering calculations and interprets results as to their impact on the permit and the environment
Reviews technical reports associated with permitting activities at the Agency and provides recommendations as appropriate.
Develops guidance documents and may prepare scientific, technical, or other publications related to air/water pollution control, which assists the regulated community and/or the general public
Provides a variety of public outreach efforts, including speeches and other public presentations, requiring thorough knowledge of permitting program.
Provides detailed technical advice to, and interacts with, federal, state, and local governments, industry representatives, the general public, legislature, and other programs of the agency
May provide testimony in highly contested case hearings, may act as backup for less experienced staff.
Provides expertise during policy and rule development activities and may act as lead in development of policy and rules
Plans, develops, and/or leads the activities of an environmental permitting initiative.
May plan, review, and/or coach the work of other employees
Reviews data, applications, calculations, and reports, maintains appropriate files, prepares reports, and makes recommendations as appropriate
Initiates special studies, reduces facts to specific findings and recommends resolutions.
Uses and evaluates results of computer models
Performs related work as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from a recognized institution of higher education with a major in engineering, physical science, environmental science, or related field, plus eight (8) years of full-time experience in performing engineering, technical, or related assignment in environmental permitting or control activities.

Passing the Fundamentals of Engineering Examination may be substituted for six months of experience Registration as a Professional Engineer with a valid Texas License may be substituted for one year of experience. A masters degree or a doctoral degree from a recognized institution of higher education in the specified fields may each be substituted for one year of experience with a maximum substitution of two years

CAREER LADDER PROGRESSION

This position is a competitive position on the career path.

KNOWLEDGE, SKILLS, AND ABILITIES

Ability to apply engineering techniques and concepts to complex permitting programs
Thorough knowledge of applicable local, state, and federal environmental laws, regulations, and policies.
Ability to provide a thorough analysis of complex technical permit applications
Ability to complete multiple complex projects within the guidelines of the permitting division
Thorough knowledge of the agency's operations and organization, and interaction of divisions
Good understanding of multimedia permitting and other agency environmental programs
Knowledge and skill in the computer applications used by the permitting division.

Ability to plan, review, and/or coach the technical work of others
Ability to effectively represent the agency regarding complex and difficult technical issues.
Ability to communicate technical information effectively to a variety of audiences.
In-depth understanding and the ability to interpret field and laboratory studies and protocols
Understanding of the application of multimedia environmental controls
Ability to prepare concise reports and technical papers

Training Topics Worksheet
for
(Environmental Permit Assistant II)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1.	Skill in communicating technical information to a technical audience.	Presentation Skills	Exp, TA
2.	Skill in evaluating or analyzing technical data and making recommendations.		Exp, OJT
3.	Skill in using the computer applications used by the permitting division.	Agency baseline-software	Exp, TA
4.	Skill in communicating effectively in writing.	Writing That Speaks	Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

Training Topics Worksheet
for
(Environmental Permit Assistant III)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1.	Skill in applying engineering techniques and concepts to basic permitting issues.		Exp, OJT
2.	Skill in communicating technical information to a technical audience.	Presentation Skills	Exp, TA
3.	Skill in evaluating or analyzing technical data and making recommendations.		Exp, OJT
4.	Skill in using various scientific instruments and computer software programs..		Exp, OJT
5.	Skill in communicating effectively in writing.	Writing That Speaks	Exp
6	Knowledge of selected local, state, and federal environmental laws, regulations, and policies.		Exp, OJT
7	Skill in providing a basic analysis of permit applications.		Exp, OJT
8.	Skill in using the computer applications used by the permitting division.	Agency baseline-software	Exp, TA

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

Training Topics Worksheet
for
(Environmental Permit Specialist I)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1.	Skill in applying engineering techniques and concepts to moderate to routine permitting issues.		Exp
2.	Knowledge of applicable local, state, and federal environmental laws, regulations, and policies.		Exp
3.	Skill in providing a thorough analysis of permit applications.	Fundamentals of engineering, environmental, and physical science	Ed, MQ
4.	Skill in completing multiple projects within the guidelines of the permitting division.		Exp
5.	Knowledge of the agency's operations and organization, and interaction of divisions.		Exp
6.	Skill in using the computer applications used by the permitting division.	Agency baseline-software	Exp, TA
7.	Skill in communicating technical information effectively to a variety of audiences.	Technical writing Basic presentation skills	Exp, TA
8.	Knowledge of field and laboratory studies and protocols.		Exp
9.	Knowledge of the application of environmental controls.		Exp
10.	Skill in preparing concise reports and technical papers.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

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Training Topics Worksheet
for
(Environmental Permit Specialist II)

Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1. Skill in applying engineering techniques and concepts to moderate to complex permitting issues.	Preparation for Fundamentals of Engineering (FE) Exam	Ed, OJT, TA
2. Knowledge of applicable local, state, and federal environmental laws, regulations, and policies.	Local, state, and federal environmental laws, regulations, and policies	Exp, OJT, TA
3. Skill in providing a thorough analysis of permit applications.	Basic permitting process Technical industrial processes Structure of rules and regulations Pollution source characteristics Application review process Modeling and impact review Site map interpretation Interpretation of appropriate guidance documents Interpretation of applicable rules and regulations	Exp, OJT, TA
4. Skill in completing multiple projects within the guidelines of the permitting division.	Project management Time management	Exp, TA
5. Knowledge of the agency's operations and organization, and interaction of divisions.	Introduction to the Programs of the TNRCC	Exp, TA
6. Skill in using computer applications used by the permitting division.	Agency/Division/Section/Team-baselined software	Exp, TA, OJT

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B211

B212

7.	Skill in communicating technical information effectively to a variety of audiences.	Communicating technical information to the non-technical audience Public meetings Expert witness	Exp, TA
8.	Knowledge of field and laboratory studies and protocols	EPA/state approved protocols	Exp, OJT, TA
9.	Skill in the application of environmental controls.	Environmental controls	Ed, Exp, OJT
10.	Skill in preparing concise reports and technical papers.	Permit writing Permit documentation and correspondence Fact sheets Notice summaries Guidance documents	Exp, OJT, TA

Training Topics Worksheet
for
(Environmental Permit Specialist III)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1.	Skill in applying engineering techniques and concepts to moderate to complex permitting issues.		Ed, Exp
2.	Knowledge of applicable local, state, and federal environmental laws, regulations, and policies.	Rule interpretation	Exp, OJT, TA
3.	Skill in providing a thorough analysis of permit applications.		Exp
4.	Skill in completing multiple projects within the guidelines of the permitting division.		Exp
5.	Knowledge of the agency's operations and organization, and interaction of divisions.	Division/section details - subjects To Be Determined (TBD)	Exp, TA
6.	Skill in using computer applications used by the permitting division.		Exp
7.	Skill in communicating technical information effectively to a variety of audiences.	Conference presentations (communicate to 100 or more people)	Exp, OJT, TA
8.	Skill in interpreting field and laboratory studies and protocols.		Exp
9.	Skill in the application of environmental controls.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B214

10. Skill in preparing concise reports and technical papers.		Exp

Training Topics Worksheet
for
(Environmental Permit Specialist IV)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1.	Skill in applying engineering techniques and concepts to moderate to complex permitting issues.	Specialized technical topics (TBD) Preparation for the Principles and Practices of Environmental Engineering Exam	Exp, TA
2.	Knowledge of applicable local, state, and federal environmental laws, regulations, and policies.		Exp
3.	Skill in providing a thorough analysis of permit applications.		Exp
4.	Skill in completing multiple projects within the guidelines of the permitting division.		Exp
5.	Knowledge of the agency's operations and organization, and interaction of divisions.	Cross-program interactions	OJT, TA
6.	Knowledge of multimedia permitting and other agency environmental programs		Exp, OJT, TA
7.	Skill in using computer applications used by the permitting division.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

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8.	Skill in planning, reviewing, and/or coaching the technical work of others.	Governor's Center for Management Development (GCMD) Agency policy-related topics Mentoring Coaching Leadership skills Supervisory skills Other management courses (TBD)	Exp, TA
9.	Skill in communicating technical information effectively to a variety of audiences.		Exp
10.	Skill in interpreting field and laboratory studies and protocols	Specialized technical topics (TBD)	Exp, OJT, TA
11.	Skill in the application of environmental controls.		Exp
12.	Skill in preparing concise reports and technical papers.		Exp

Training Topics Worksheet
for
(Environmental Permit Specialist V)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1.	Skill in applying engineering techniques and concepts to complex permitting issues.		Exp
2.	Knowledge of applicable local, state, and federal environmental laws, regulations, and policies.	OPRD	Exp, TA
3.	Skill in providing a thorough analysis of complex technical permit applications.	Impact of permits on other agency areas/ programs/ multimedia	Exp, OJT, TA
4.	Skill in completing multiple projects within the guidelines of the permitting division.		Exp
5.	Knowledge of the agency's operations and organization, and interaction of divisions.		Exp, OJT, TA
6.	Knowledge of multimedia permitting and other agency environmental programs	Pollution prevention Interaction with other programs	Exp, OJT, TA
7.	Skill in using computer applications used by the permitting division.		Exp
8.	Skill in planning, reviewing, and/or coaching the technical work of others.		Exp, TA

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B217

B218

9.	Skill in effectively representing the agency regarding complex and difficult technical issues.	Federal and state contacts EPA State agencies Local programs Resource Witness	Exp, OJT, TA
10.	Skill in communicating technical information effectively to a variety of audiences.		Exp
11.	Skill in interpreting field and laboratory studies and protocols.		Exp, OJT, TA
12.	Skill in the application of environmental controls.		Exp
13.	Skill in preparing concise reports and technical papers.		Exp

Engineering Specialist

ENGINEERING SPECIALIST I

CLASS NO. 2158A
PAY GROUP 18

GENERAL DESCRIPTION

Performs engineering work requiring judgment in the evaluation, review, selection, adaptation, and modification of standards, techniques, procedures, and criteria. Any work requiring certification under the provisions of the Texas Engineering Practice Act as amended, Article 3271a, Vernon's Annotated Texas Statutes, must be certified by the supervising registered professional engineer. Work may be performed in an office, laboratory, or field environment.

Work is performed under moderate supervision of a registered professional engineer, with latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Plans, schedules, coordinates or conducts routine engineering work for projects as assigned. Work may include:

- technical review of permit or bond applications
- compilation of point source emissions inventories
- development and assessment of pollution control strategies
- review of site assessments and/or corrective action reports
- performance of compliance determinations
- collection and analysis of data
- development of simulation models
- review or preparation of engineering plans and specifications, evaluations, hardware/software specifications, or reports
- performance of site or construction inspection
- design, development, building, and integration of hardware and software systems
- support of regulations development and contracts management
- preparation of correspondence and technical reports
- interaction with local, state, and federal agencies, regulated community, and general public.

Assist in the training of less experienced employees. May serve as a technical task or project manager.

MINIMUM QUALIFICATIONS

A bachelor's degree in engineering from an accredited college or university, plus three years of satisfactory full-time engineering experience;

AND

Must have passed the Fundamentals of Engineering Exam (E.I.T. certification), or have had this exam waived by the Board of Registration for Professional Engineers.

A master's degree in engineering, environmental science, or related fields from an accredited college or university may be substituted for one year of experience.

A Ph.D. degree in engineering, environmental science, or related fields from an accredited college or university may be substituted for one additional year of experience.

One year of satisfactory experience as an Engineering Assistant IV with E.I.T. certification will qualify for promotion to Engineering Specialist I.

KNOWLEDGE, SKILLS, AND ABILITIES

Working knowledge of, and skill in applying: engineering theory, techniques, procedures, and higher mathematics.

Working knowledge of principles and practices of engineering as applied to environmental, health, and safety issues.

Working knowledge of applicable laws, regulations, and policies.

Working knowledge of precedents in the specialty area and related specialties.

Proven ability to: organize and plan workload; deal tactfully with the public; express ideas clearly and concisely; address groups effectively; and train others

Ability to prepare technical reports and other appropriate documentation.

ENGINEERING SPECIALIST I

CLASS NO. 2158A
PAY GROUP 18

Knowledge of computers and application software.

Demonstrated ability to follow policies and procedures.

Ability to effectively represent the agency as an expert witness on matters not requiring registration as a professional engineer.

ENGINEERING SPECIALIST II

CLASS NO. 2160
PAY GROUP 19

GENERAL DESCRIPTION

Performs complex engineering work at a professional level requiring judgment in the evaluation, review, selection, adaptation, and modification of standards, techniques, procedures, and criteria. Any work requiring certification under the provisions of the Texas Engineering Practice Act as amended, Article 3271a, Vernon's Annotated Texas Statutes, must be certified by the supervising registered professional engineer. Work may be performed in an office, laboratory, or field environment.

Work is performed under general supervision of a registered professional engineer, with considerable latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Plans, schedules, coordinates or conducts routine engineering work for projects as assigned. Work may include:

- technical review of permit or bond applications
- compilation of point source emissions inventories
- development and assessment of pollution control strategies
- review of site assessments and/or corrective action reports
- performance of compliance determinations
- collection and analysis of data
- development of simulation models
- review or preparation of engineering plans and specifications, evaluations, hardware/software specifications, or reports
- performance of site or construction inspection
- design, development, building, and integration of complex multitasking, realtime hardware and software systems
- support of regulations development and contracts management
- preparation of correspondence and technical reports
- interaction with local, state, and federal agencies, regulated community, and general public

May assist in coordinating the work of engineering specialists or assistants, and technicians on specific assignments. Assist in the training of less experienced employees. May serve as a technical task or project manager.

MINIMUM QUALIFICATIONS

A bachelor's degree in engineering from an accredited college or university, plus four years of satisfactory full-time engineering experience;

AND

Must have passed the Fundamentals of Engineering Exam (E.I.T. certification), or have had this exam waived by the Board of Registration for Professional Engineers.

A master's degree in engineering, environmental science, or related fields from an accredited college or university may be substituted for one year of experience.

A Ph.D. degree in engineering, environmental science, or related fields from an accredited college or university may be substituted for one additional year of experience.

One year of satisfactory experience as an Engineering Specialist I with E.I.T. certification will qualify for promotion to Engineering Specialist II.

KNOWLEDGE, SKILLS, AND ABILITIES

Working knowledge of, and skill in applying: engineering theory, techniques, procedures, and higher mathematics.

Working knowledge of principles and practices of engineering as applied to environmental, health, and safety issues.

Working knowledge of applicable laws, regulations, and policies.

Working knowledge of precedents in the specialty area and related specialties.

Proven ability to organize and plan workload; deal tactfully with the public; express ideas clearly and concisely; address groups effectively; and train others.

Ability to prepare technical reports and other appropriate documentation

ENGINEERING SPECIALIST II

CLASS NO. 2160
PAY GROUP 19

Knowledge of computers and application software.

Demonstrated ability to follow policies and procedures.

Ability to effectively represent the agency as an expert witness on matters not requiring registration as a professional engineer.

ENGINEERING SPECIALIST III

CLASS NO. 2162
PAY GROUP 20

GENERAL DESCRIPTION

Performs highly complex engineering work at a professional level requiring judgment in the evaluation, review, selection, adaptation, and modification of standards, techniques, procedures, and criteria. Any work requiring certification under the provisions of the Texas Engineering Practice Act as amended, Article 3271a, Vernon's Annotated Texas Statutes, must be certified by the supervising registered professional engineer. Work may be performed in an office, laboratory, or field environment.

Work is performed under broad general supervision of a registered professional engineer, with considerable latitude for the use of initiative and independent judgment.

EXAMPLES OF WORK PERFORMED

Plans, schedules, coordinates or conducts detailed engineering work for projects as assigned. This work may include a variety of complex features. Work may include:

- technical review of permit or bond applications
- compilation of point source emissions inventories
- development and assessment of pollution control strategies
- review of site assessments and/or corrective action reports
- performance of compliance determinations
- collection and analysis of data
- development of simulation models
- review or preparation of engineering plans and specifications, evaluations, hardware/software specifications, or reports
- performance of site or construction inspection
- design, development, building, and integration of complex multitasking, realtime hardware and software systems
- support of regulations development and contracts management
- preparation of correspondence and technical reports
- interaction with local, state, and federal agencies, regulated community, and general public.

May assist in supervising or coordinating the work of engineering specialists or assistants, and technicians on specific assignments. Assist in the training of less experienced employees. May serve as a technical task or project manager.

MINIMUM QUALIFICATIONS

A bachelor's degree in engineering from an accredited college or university, plus five years of satisfactory full-time engineering experience;

AND

Must have passed the Fundamentals of Engineering Exam (E.I.T. certification), or have had this exam waived by the Board of Registration for Professional Engineers

A master's degree in engineering, environmental science, or related fields from an accredited college or university may be substituted for one year of experience.

A Ph.D. degree in engineering, environmental science, or related fields from an accredited college or university may be substituted for one additional year of experience.

One year of satisfactory experience as an Engineering Specialist II with E.I.T. certification will qualify for promotion to Engineering Specialist III.

KNOWLEDGE, SKILLS, AND ABILITIES

Thorough knowledge of, and skill in applying: engineering theory, techniques, procedures, and higher mathematics.

Thorough knowledge of principles and practices of engineering as applied to environmental, health, and safety issues.

Considerable knowledge of applicable laws, regulations, and policies.

Broad knowledge of precedents in the specialty area and related specialties.

Proven ability to: organize and plan workload; deal tactfully with the public; express ideas clearly and concisely; address groups effectively; and train others.

Proven ability to prepare technical reports and other appropriate documentation

ENGINEERING SPECIALIST III

CLASS NO. 2162
PAY GROUP 20

Knowledge of computers and application software.

Demonstrated ability to follow policies and procedures, and ability to plan and develop new policies and procedures as necessary.

Ability to effectively represent the agency as an expert witness on matters not requiring registration as a professional engineer.

ENGINEERING SPECIALIST IV

CLASS NO. 2164
PAY GROUP 21

GENERAL DESCRIPTION

Performs supervisory or highly complex engineering work at a professional level requiring judgment in the evaluation, review, selection, adaptation, and modification of standards, techniques, procedures, and criteria. Any work requiring certification under the provisions of the Texas Engineering Practice Act as amended, Article 3271a, Vernon's Annotated Texas Statutes, must be certified a registered professional engineer.

May represent the agency in legal proceedings. Plans, organizes, and directs work of subordinate engineering specialists, assistants, or technicians. Receives broad general direction on assignments.

EXAMPLES OF WORK PERFORMED

May supervise, coordinate, and review the work subordinate staff, and may be assisted on projects by engineers, other professionals, or technicians

Typical duties may include one or more of the following:

1) In a supervisory capacity:
- plans, develops, coordinates and directs the activities of engineering or technical staff
- estimates personnel needs, initiates personnel actions, prepares budgets, and schedules and assigns work to meet completion dates.

2) As a project manager or office specialist:
- develops and evaluates plans and criteria for a variety of projects and activities to be carried out by others
- assesses the feasibility and soundness of proposed engineering evaluation tests, products, or equipment when necessary data are insufficient or confirmation by testing is advisable
- usually performs as an office advisor and consultant in technical matters and program functions
- estimates personnel needs, prepares budgets, and schedules and assigns work to meet completion dates.

Work may result in the development of new or refined techniques, procedures, equipment, processes, products, and/or scientific methods.

May coordinate the work of division level technical staff. Assist in the training of less experienced employees.

Work may include review of permit or bond applications, compilation of emissions inventories, development and assessment of pollution control strategies, review site assessments and/or corrective action reports, perform compliance determinations, collection and analysis of data, development of simulation models, review or prepare engineering plans and specifications, evaluations, hardware/software, or reports, perform site or construction inspection, design, develop, build, and integrate complex multi-tasking, real-time hardware and software systems, supporting regulations development and contracts management, preparation of correspondence and technical reports, and interaction with local, state, and federal agencies, regulated community, and general public.

MINIMUM QUALIFICATIONS

A bachelor's degree in engineering from an accredited college or university, plus six years of satisfactory full-time engineering experience;

AND

Must have passed the Fundamentals of Engineering Exam (E.I.T. certification), or have had this exam waived by the Board of Registration for Professional Engineers

A master's degree in engineering, environmental science, or related fields from an accredited college or university may be substituted for one year of experience.

A Ph.D. degree in engineering, environmental science, or related fields from an accredited college or university may be substituted for one additional year of experience

One year of satisfactory experience as an Engineering Specialist III with E.I T. certification will qualify for promotion to Engineering Specialist IV.

ENGINEERING SPECIALIST IV

CLASS NO. 2164
PAY GROUP 21

KNOWLEDGE, SKILLS, AND ABILITIES

Extensive knowledge of, and skill in applying: engineering theory, techniques, procedures, and higher mathematics.

Extensive knowledge of principles and practices of engineering as applied to environmental, health, and safety issues.

Thorough knowledge of applicable laws, regulations, and policies.

Extensive knowledge of precedents in the specialty area and related specialties.

Proven ability to: organize and plan workload; deal tactfully with the public; express ideas clearly and concisely; address groups effectively; and train others.

Proven ability to prepare technical reports and other appropriate documentation.

Knowledge of computers and application software.

Demonstrated ability to follow policies and procedures, and ability to plan and develop new policies and procedures as necessary.

Ability to effectively represent the agency as an expert witness on matters not requiring registration as a professional engineer.

Training Topics Worksheet
for
(Engineering Specialist I)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1	Skill in applying engineering theory.		Exp
2.	Skill in applying engineering techniques.		Exp
3.	Skill in applying engineering procedures.		Exp
4.	Skill in applying higher mathematics.		Exp
5.	Knowledge of principals and practices of engineering as applied to environmental, health, and safety issues.		Exp
6.	Knowledge of applicable laws, regulations, policies.		Exp
7.	Knowledge of precedents in the speciality area and related specialities.		Exp
8.	Skill in organizing and planning workloads.		Exp
9.	Skill in dealing tactfully with the public.		Exp
10.	Skill in expressing ideas clearly and concisely.		Exp
11.	Skill in addressing groups effectively.		Exp
12.	Skill in training others.	On-the-Job (OJT) Training	Exp, TA
13.	Skill in preparing technical reports and other appropriate documentation.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B229

B230

14.	Knowledge of computers and application software.		Exp
15.	Skill in following policies and procedures.		Exp
16.	Skill in effectively representing the agency as an expert witness in matters not requiring registration as a professional engineer.		Exp

Training Topics Worksheet
for
(Engineering Specialist II)

Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1. Skill in applying engineering theory.		Exp
2. Skill in applying engineering techniques.		Exp
3. Skill in applying engineering procedures.		Exp
4. Skill in applying higher mathematics.		Exp
5 Knowledge of principals and practices of engineering as applied to environmental, health, and safety issues.		Exp
6. Knowledge of applicable laws, regulations, policies.		Exp
7. Knowledge of precedents in the speciality area and related specialities.		Exp
8. Skill in organizing and planning workloads.		Exp
9. Skill in dealing tactfully with the public.		Exp
10. Skill in expressing ideas clearly and concisely.		Exp
11. Skill in addressing groups effectively.		Exp
12. Skill in training others.		Exp
13. Skill in preparing technical reports and other appropriate documentation.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B232

14.	Knowledge of computers and application software.		Exp
15.	Skill in following policies and procedures.		Exp
16.	Skill in effectively representing the agency as an expert witness in matters not requiring registration as a professional engineer.		Exp

Training Topics Worksheet
for
(Engineering Specialist III)

Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1. Skill in applying engineering theory.		Exp
2 Skill in applying engineering techniques.		Exp
3. Skill in applying engineering procedures.		Exp
4. Skill in applying higher mathematics.		Exp
5. Skill in applying principals and practices of engineering as they apply to environmental, health, and safety issues.		Exp
6. Skill in applying applicable laws, regulations and policies.		Exp
7. Skill in applying precedents in the speciality area and related specialities.		Exp
8. Skill in using computers and application software.		Exp
9. Skill in organizing and planning workloads.		Exp
10. Skill in dealing tactfully with the public		Exp
11. Skill in expressing ideas clearly and concisely.		Exp
12. Skill in addressing groups effectively.		Exp
13. Skill in training others.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B234

14.	Skill in preparing technical reports and other appropriate documentation.		Exp
15.	Knowledge of computers and application software.		Exp
16.	Skill in following policies and procedures.		Exp
17.	Skill in planning and developing new policies and procedures.		Exp
18.	Skill in effectively representing the agency as an expert witness in matters not requiring registration as a professional engineer.		Exp

Training Topics Worksheet
for
(Engineering Specialist IV)

Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1. Skill in applying engineering theory.		Exp
2. Skill in applying engineering techniques.		Exp
3. Skill in applying engineering procedures.		Exp
4. Skill in applying higher mathematics.		Exp
5. Skill in applying principals and practices of engineering as they apply to environmental, health, and safety issues.		Exp
6. Skill in applying applicable laws, regulations and policies.		Exp
7 Skill in applying precedents in the speciality area and related specialities.		Exp
8. Skill in organizing and planning workloads.		Exp
9. Skill in dealing tactfully with the public.		Exp
10. Skill in expressing ideas clearly and concisely.		Exp
11. Skill in addressing groups effectively.		Exp
12. Skill in training others.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B236

13.	Skill in preparing technical reports and other appropriate documentation.		Exp
14.	Skill in using computers and application software.		Exp
15.	Skill in following policies and procedures.		Exp
16.	Skill in planning and developing new policies and procedures.		Exp
17.	Skill in effectively representing the agency as an expert witness in matters not requiring registration as a professional engineer..		Exp

Enforcement Coordinator Specialist and Trainee

ENGINEERING ASSISTANT I
(ENFORCEMENT COORDINATOR TRAINEE I)

CLASS NO. 2151A
PAY GROUP 14

GENERAL DESCRIPTION

Performs trainee entry level* work at a professional level in the environmental quality or engineering field not requiring certification under any provisions of the Texas Engineering Practice Act as amended, Article 3271a V.A.C.S. Performs entry level work in the fields of air, water, or waste enforcement. Work involves reviewing technical inspections, surveys, and complaint investigations; preparing enforcement documents and making recommendations; preparing draft correspondence; conducting case follow-ups; and assisting in the preparation of environmental education programs. Work is performed under close supervision.

* Entry level is the beginning level for acquiring the basic knowledge and skills of the enforcement program.

EXAMPLES OF WORK PERFORMED

Reviews basic technical inspections and surveys; evaluates results and determines compliance with applicable regulations, statutes, and policies.
Prepares concise and accurate enforcement reports, documents, and letters using standardized formats.
Schedules, coordinates, and observes enforcement meetings in a professional manner.
Collects and analyzes additional information for further case development.
Inputs and maintains the enforcement tracking systems (i.e. databases).
Participates as a trainee in field investigations and discusses compliance issues with the regulated community.
Provides entry level limited technical assistance to the public, regulated community, other interested groups and public officials.
Attends TNRCC agendas, administrative hearings, and civil trials as an observer of expert testimony.
Assists in the preparation of environmental education programs and observes presentations.
Performs related work as assigned.

MINIMUM QUALIFICATIONS

Ninety semester hours from an accredited college or university.

OR

One year of TNRCC full time experience as an Environmental Investigator I.

OR

Four years of full time experience in an administrative capacity* or in clerical work in environmental investigations or similar program area.

* Administrative capacity is work where primary duties consist of performing administrative tasks of an office, excluding work such as clerical, secretarial, sales, equipment operations, and manual labor.

KNOWLEDGE, SKILLS, AND ABILITIES

Ability to read and understand state and federal law and regulations; to effectively plan and organize entry level enforcement work; to communicate effectively; to exercise good judgment; to make technically sound decisions; to function as a member of a team; and to use word processing, database and other computer programs.

ENGINEERING ASSISTANT II
(ENFORCEMENT COORDINATOR TRAINEE II)

CLASS NO. 2153A
PAY GROUP 15

GENERAL DESCRIPTION

This is the entry point of the Enforcement Coordinator career ladder. Performs trainee entry level* work to routine work at a professional level in the environmental quality or engineering field not requiring certification under any provisions of the Texas Engineering Practice Act as amended, Article 3271a V.A.C.S. Performs entry level work in the fields of air, water, or waste enforcement. Work involves reviewing technical inspections, surveys, and complaint investigations; preparing enforcement documents and making recommendations; preparing draft correspondence; conducting case follow-ups; and assisting in the preparation of environmental education programs. Work is performed under close supervision.

* Entry level is the beginning level for acquiring the basic knowledge and skills of the enforcement program. To perform the job of an Enforcement Coordinator (EC) Trainee II requires more knowledge, skills, techniques, experience, and ability to recognize and resolve technical issues than is required to perform the duties of an Enforcement Coordinator Trainee I position.

EXAMPLES OF WORK PERFORMED

Reviews basic technical inspections and surveys; evaluates results and determines compliance with applicable regulations, statutes, and policies.
Prepares concise and accurate enforcement reports, documents, and letters using standardized formats.
Schedules, coordinates, and observes enforcement meetings.
Collects and analyzes information for further case development.
Inputs and maintains the enforcement tracking systems (i.e. databases).
Participates as a trainee in field investigations and discusses compliance issues with the regulated community.
Provides semi-routine, limited, technical assistance to the public, regulated community, other interested groups, and public officials.
Attends TNRCC agendas, administrative hearings, and civil trials as an observer of expert testimony.
Assists in the preparation of environmental education programs and presentations.
Performs related work as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from an accredited college or university.

OR

One year of TNRCC full-time experience as an Enforcement Coordinator Trainee I.

OR

Two years of full time experience as an Environmental Investigator I.

KNOWLEDGE, SKILLS, AND ABILITIES

Ability to read and understand state and federal law and regulations; to effectively plan and organize entry level enforcement work; to communicate effectively; to exercise good judgment; to make technically sound decisions; to function as a member of a team; and to use word processing, database, and other computer programs.

ENGINEERING SPECIALIST I (ENFORCEMENT COORDINATOR I)

CLASS NO. 2127G
PAY GROUP 17

GENERAL DESCRIPTION

Performs routine* technical work at a professional level in the environmental quality or engineering field not requiring certification under any provisions of the Texas Engineering Practice Act as amended, Article 3271a V.A.C.S. Performs routine work in the fields of air, water, or waste enforcement. Work involves reviewing technical inspections, surveys, complaint investigations, and technical reports; preparing enforcement documents and making recommendations; preparing draft correspondence; conducting case follow-ups; and assisting in the preparation of environmental education programs. Work is performed under general supervision.

* For the purpose of this job description routine means common place or repetitious. To perform the job of an Enforcement Coordinator (EC) I requires more knowledge, skills, technique, experience and ability to recognize and resolve technical issues than is required to perform the duties of an Enforcement Coordinator Trainee position.

EXAMPLES OF WORK PERFORMED

Reviews routine technical inspections, reports, and survey; evaluates results and determines compliance with applicable regulations, statutes, and policies.
Prepares concise and accurate enforcement reports, documents, and letters, including technical recommendations by applying sound scientific principles.
Schedules, coordinates, and conducts enforcement meetings, including preparation of written summaries to the files for the meetings.
Collects and analyzes additional information for further case development.
Maintains enforcement tracking systems (i.e. databases).
Participates in field investigations and discusses compliance issues with the regulated community.
Provides limited technical assistance to the public, regulated community, other interested groups and public officials.
Provides expert testimony at TNRCC agendas, administrative hearings, and civil trials on routine cases.
Assists in preparation of environmental education programs and presentations.
Performs related duties as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from an accredited college or university, plus eighteen months of full time experience in the field of environmental activities directly related to the examples of work performed.

One year of full-time experience in the field of environmental activities directly related to the examples of work performed may be substituted for each year of the required education.

OR

Eighteen months as an Enforcement Coordinator Trainee II.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of applicable local, state, and federal ordinances and laws; of environmental protection practices and techniques; of scientific principles and techniques.
Ability to plan and organize routine technical work; to communicate effectively with the public, regulated community and professional groups; to exercise good judgment; to make technically sound decisions; to function as a member of a team; and to use word processing and database computer programs.

ENGINEERING SPECIALIST II (ENFORCEMENT COORDINATOR II)

CLASS NO. 2128G
PAY GROUP 18

GENERAL DESCRIPTION

Performs moderately complex* technical work at a professional level in the environmental quality or engineering field not requiring certification under any provisions of the Texas Engineering Practice Act as amended, Article 3271a V.A.C.S. Performs moderately complex work in the fields of air, water, or waste enforcement. Work involves reviewing technical inspections, surveys, complaint investigations, and technical reports; preparing enforcement documents and making recommendations; preparing draft correspondence; conducting case follow-ups; and preparing environmental education programs. Work is performed under general direction.

* For the purpose of this job description "moderately complex" means medium degree of difficulty. To perform the job of an Enforcement Coordinator (EC) II requires more knowledge, skills, technique, experience and ability to recognize and resolve technical issues than is required to perform the duties of an EC I position.

EXAMPLES OF WORK PERFORMED

Reviews moderately complex technical inspections, reports, and surveys; evaluates results and determines compliance with applicable regulations, statutes, and policies.
Prepares concise and accurate enforcement reports, documents, and letters, including technical recommendations by applying sound scientific principles.
Prepares environmental education programs and presentations.
Schedules, coordinates, and conducts enforcement meetings in a professional manner, including preparation of written summaries for files.
Collects and analyzes additional information for further case development.
Maintains enforcement tracking systems (i.e. databases).
Participates in field investigations and discusses compliance issues with the regulated community.
Provides technical assistance to the public, regulated community, other interested groups and public officials, on moderately complex cases.
Provides expert testimony at TNRCC agendas, administrative hearings, and civil trials.
Performs related duties as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from an accredited college or university, plus two and a half years of full-time experience in the field of environmental activities directly related to the examples of work performed.

One year of full-time experience in the field of environmental activities directly related to the examples of work performed may be substituted for each year of the required education.

OR

One year as an Enforcement Coordinator I .

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of, and ability to interpret, applicable local, state and federal ordinances, and laws. Knowledge of organization and structure of other state and federal agencies with jurisdiction on environmental protection regulations; of environmental and/or engineering principles in the field of industrial or municipal solid waste, petroleum storage tanks, air pollution, waste pollution, or water resource management; and of environmental monitoring techniques and analysis. Ability to effectively plan, organize, and complete moderately complex technical work; to prepare and present technical papers and studies to professional groups; to assist in managing and planning group efforts on environmental activities; to communicate effectively with the public, regulated community and professional groups; to review reports and studies for technical correctness; to exercise good judgment; to make technically sound decisions; to function as a member of a team; and to use word processing, and database computer programs.

ENGINEERING SPECIALIST III (ENFORCEMENT COORDINATOR III)

CLASS NO. 2129G
PAY GROUP 19

GENERAL DESCRIPTION

Performs complex* technical work at a professional level in the environmental quality or engineering field not requiring certification under any provisions of the Texas Engineering Practice Act as amended, Article 3271a V.A.C.S. Performs, or manages, complex work in the fields of air, water, or waste enforcement. Work involves performing complex enforcement investigations or other compliance and enforcement projects; writing and reviewing technical reports and inspections, surveys, and complaint investigations; preparing enforcement documents and providing advice, complex technical assistance, and recommendations; preparing draft correspondence; conducting case follow-ups; providing scientific or technical public education programs; interpreting rules, regulations and environmental policies; and/or coaching (assisting in technical decision making) less experienced staff in technical matters. Work is performed under general direction with some latitude for initiative and independent judgment.

* For the purpose of this job description "complex" means difficulty in scrutinizing, analyzing and resolving. To perform the job of an Enforcement Coordinator (EC) III requires more knowledge, skills, technique, experience and ability to recognize and resolve technical issues than is required to perform the duties of an EC II position.

EXAMPLES OF WORK PERFORMED

Reviews moderately complex technical inspections, reports, and surveys; evaluates results and determines compliance with applicable regulations, statutes and policies.
Prepares, and may minimally coach, less experienced technical staff in preparation of concise and accurate enforcement reports, documents, and letters, including technical recommendations.
Schedules, coordinates, conducts, and may minimally coach staff in conducting enforcement meetings, including preparation of written summaries to the files for meetings.
Collects and analyzes additional information for further case development, including use of advanced investigative techniques.
Maintains enforcement tracking systems (i.e. databases).
Responsible for preparation of environmental education programs and presentations.
Participates in field investigations and discusses compliance issues with the regulated community.
Provides technical assistance to the public, regulated community, other interested groups, and public officials, which may involve sensitive and highly technical enforcement matters.
Provides expert testimony at TNRCC agendas, administrative hearings, and civil trials on complex issues.
Performs related duties as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from an accredited college or university, plus three and a half years of full time experience in the field of environmental activities directly related to the examples of work performed.

One year of full-time experience in the field of environmental activities directly related to the examples of work performed may be substituted for each year of the required education.

OR

A master's degree from an accredited college or university with a major in engineering, basic science, math, environmental science, computer science or a related field, plus two and a half years of full-time experience in the field of environmental activities directly related to the examples of work performed which included one year as an enforcement coordinator.

OR

ENGINEERING SPECIALIST III
(ENFORCEMENT COORDINATOR III)

CLASS NO. 2129G
PAY GROUP 19

One year as an Enforcement Coordinator II .

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of, and ability to interpret, applicable local, state, and federal ordinances, and laws. Knowledge of organization and structure of the environmental protection organizations; of environmental and/or engineering principles in the field of industrial or municipal solid waste, petroleum storage tanks, air pollution, water pollution or water resources management; and of environmental monitoring techniques and analysis. Ability to effectively plan, direct, and lead technical work; to prepare and present complex technical papers and studies to professional groups; to manage and plan group efforts on environmental activities; to communicate effectively with the public, regulated community, and professional groups under difficult conditions; to review complex reports and studies for technical correctness; to exercise good judgment; to make technically sound decisions; to function as a member of a team; to work with several TNRCC programs or groups; to use word processing, and database computer programs; and to assist in the planning and developing of policies and procedures.

ENGINEERING SPECIALIST IV (ENFORCEMENT COORDINATOR IV)

CLASS NO. 2130G
PAY GROUP 20

GENERAL DESCRIPTION

This is the top of the Enforcement Coordinator Career Ladder. Performs highly complex* technical work at a professional level in the environmental quality or engineering field not requiring certification under any provisions of the Texas Engineering Practice Act as amended, Article 3271a V.A.C.S. Performs or manages highly complex work in the fields of air, water, or waste enforcement. Work involves performing highly complex enforcement investigations or other compliance and enforcement projects; writing and reviewing technical reports and inspections, surveys, complaint investigations; preparing and supervising preparation of enforcement documents and providing advice, complex technical assistance and recommendations; preparing draft correspondence; conducting case follow-ups; providing scientific or technical public education programs; interpreting rules, regulations and environmental policies; and/or coaching (assisting in technical decision making) less experienced staff in technical matters. Work involves development of plans for effective enforcement project management in a specific environmental media. Work is performed under general direction with wide latitude for use of initiative and independent judgment.

* For the purpose of this job description " highly complex" means highest degree of difficulty to scrutinize, analyze and resolve. To perform the job of an Enforcement Coordinator (EC) IV requires more knowledge, skills, technique, experience and ability to recognize and resolve technical issues than is required to perform the duties of an EC III position.

EXAMPLES OF WORK PERFORMED

Reviews highly complex technical inspections, reports, and surveys; evaluates results and determines compliance with applicable regulations, statutes, and policies.
Prepares and may coach less experienced technical staff in preparation of concise and accurate enforcement reports, documents, and letters, including recommendations.
Schedules, coordinates, conducts, and may coach the development of enforcement meetings including preparation of written summaries to the files for the meetings.
Collects and analyzes additional information for further case development, including use of advanced investigative techniques.
Maintains and may review enforcement tracking systems (i.e. databases).
Responsible for preparation of environmental education programs and presentations.
Participates in field investigations and discusses compliance issues with the regulated community.
Provides technical assistance to the public, regulated community, other interested groups, and public officials, which may involve sensitive and highly technical enforcement matters.
Provides expert testimony at commission agendas, administrative hearings, and civil trials on highly complex cases.
May serve as coach for less experienced technical staff providing technical expertise and/or consultation on specific environmental issues and/or technical issues.
Performs related duties as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from an accredited college or university, plus five years of full time experience in the field of environmental activities directly related to the examples of work performed.

One year of full-time experience in the field of environmental activities directly related to the examples of work performed may be substituted for each year of the required education.

OR

A master's degree from an accredited college or university with a major in engineering, basic

science, math, environmental science, computer science or related field, plus four years of full-time experience in the field of environmental activities directly related to the examples of work performed which included .two and one half years as an enforcement coordinator.

OR

Eighteen months of full-time experience as an Enforcement Coordinator III.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of, and ability to interpret, applicable local, state, and federal ordinances and laws; of organization and structure of the environmental protection organizations; of environmental and/or engineering principles in the field of industrial or municipal solid waste, petroleum storage tanks, air pollution, water pollution or water resources management; and of environmental monitoring techniques and analysis.

Ability to effectively plan, direct, and coach less experienced staff on technical work; to prepare and present complex technical papers and studies to professional groups; to manage and plan group efforts on environmental activities; to communicate effectively with the public, regulated community, and professional groups under difficult conditions; to review complex reports and studies for technical correctness; to exercise good judgment; to make technically sound decisions; to function as a member of a team; to work with several TNRCC programs or groups; to use word processing, and database computer programs; and to assist in the planning and developing of policies and procedures.

ENVIRONMENTAL QUALITY SPECIALIST VI (ENFORCEMENT COORDINATOR V)

CLASS NO. 4065G
PAY GROUP 21

GENERAL DESCRIPTION

Advises management and staff on highly complex technical issues. Performs highly complex technical work at a professional level in the environmental quality or engineering field not requiring certification under any provisions of the Texas Engineering Practice Act as amended, Article 3271a V.A.C.S. Performs or manages highly complex work in the fields of air, water, or waste enforcement. Work involves performing highly complex enforcement investigations or other compliance and enforcement projects; writing and reviewing technical reports, technical inspections, surveys, and complaint investigations; preparing and supervising preparation of enforcement documents and providing advice, complex technical assistance and recommendations; preparing draft correspondence; conducting case follow-ups; providing scientific or technical public education programs; interpreting rules, regulations and environmental policies; and/or coaching the work of less experienced staff in technical matters. Work involves development of plans for effective enforcement project management in a specific environmental media. Work is performed under minimal direction.

* For the purpose of this job description " highly complex" means highest degree of difficulty to scrutinize, analyze, and resolve. To perform the job of an Enforcement Coordinator (EC) V requires more knowledge, skills, technique, experience and ability to recognize and resolve technical issues than is required to perform the duties of an EC IV position. (This position is designed for non-supervisory staff).

EXAMPLES OF WORK PERFORMED

Advises management and staff on highly complex technical issues.
Reviews highly complex technical inspections, reports, surveys, evaluates results, and determines compliance with applicable regulations, statutes and policies.
Prepares and may coach less experienced technical staff in preparation of concise and accurate enforcement reports, documents, and letters, including recommendations within the specified time frames.
Prepares environmental education programs and presentations.
Provides technical guidance and expertise for staff in compliance and enforcement matters.
Provides technical assistance to the public, regulated community, other interested groups, and public officials, which may involve sensitive and highly technical enforcement matters.
Provides expert testimony at Commission Agendas, Administrative Hearings, and civil trials on highly complex cases.
Collects and analyzes additional information for further case development, including use of advanced investigative techniques.
Maintains and may review enforcement tracking systems (i.e. databases).
Participates in field investigations and discusses compliance issues with the regulated community.
Serves as coach for less experience technical staff providing technical expertise and/or consultation on specific environmental issues and/or technical issues.
Performs related duties as assigned.

MINIMUM QUALIFICATIONS

A bachelor's degree from an accredited college or university, plus six years of full time experience in the field of environmental activities directly related to the examples of work performed

One year of full-time experience in the field of environmental activities directly related to the examples of work performed may be substituted for each year of the required education.

OR

ENVIRONMENTAL QUALITY SPECIALIST VI (ENFORCEMENT COORDINATOR V)

CLASS NO. 4065G
PAY GROUP 21

A master's degree from an accredited college or university with a major in engineering, basic science, math, environmental science, computer science or related field, plus five years of full-time experience in the field of environmental activities directly related to the examples of work performed, which included three and one half years of as an enforcement coordinator.

OR

One year of full-time experience as an Enforcement Coordinator IV.

KNOWLEDGE, SKILLS, AND ABILITIES

Knowledge of, and ability to, interpret applicable local, state, and federal ordinances, and laws; of organization and structure of the environmental protection organizations; of environmental and/or engineering principles in the field of industrial or municipal solid waste, petroleum storage tanks, air pollution, water pollution or water resources management; and of environmental monitoring techniques and analysis.
Ability to effectively plan, direct, and communicate knowledge on specific technical fields; to prepare and present complex technical papers and studies to professional groups and TNRCC staff; to manage and plan group efforts on environmental activities; to communicate effectively with the public, regulated community, and professional groups under difficult conditions; to review complex reports and studies for technical correctness; to exercise good judgment; to make technically sound decisions; to function as a member of a team and as a technical expert; to use word processing, and database computer programs; and to assist in the planning and developing of policies and procedures.

Training Topics Worksheet
for
(Enforcement Coordinator Trainee I)

Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1. Skill in reading and understanding state and federal laws and regulations. a. Identify structure of rules and regulations b. Distinguish between state and federal permit application rules and regulations	Introduction to the Programs of the TNRCC	Exp, TA
2. Skill in effectively planning and organizing entry-level enforcement work.	Enforcement process Project Management Essentials Time Management	Exp, TA
3. Skill in communicating effectively.	Public/customer service Presentation Skills Writing That Speaks! Observation skills	Exp, TA
4. Skill in exercising good judgement.	Decision making	Exp
5. Skill in making technically sound decisions.	Decision making	Exp
6. Skill in functioning as a member of a team.	Teambuilding	Exp
7. Skill in using word processing, database, and other computer programs.	Appropriate applications	Exp, TA

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

Training Topics Worksheet
for
(Enforcement Coordinator Trainee II)

Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1. Skill in reading and understanding state and federal laws and regulations. a. Identify structure of rules and regulations b. Distinguish between state and federal permit application rules and regulations		Exp
2. Skill in effectively planning and organizing entry-level enforcement work.		Exp
3. Skill in communicating effectively.		Exp
4. Skill in exercising good judgement.		Exp
5. Skill in making technically sound decisions.		Exp
6. Skill in functioning as a member of a team.		Exp
7. Skill in using word processing, database, and other computer programs.		Exp, TA

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

Training Topics Worksheet
for
(Enforcement Coordinator I)

Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1. Knowledge of applicable local, state and federal ordinances and laws.	OSHA RCRA Overview of Chapters 342, 361, and 26 of Health and Safety Code Overview of Chapters 335, 337, 330 or successor (enforcement rules) of the TAC FCAA FCWA	Exp, OJT, TA
2. Knowledge of environmental protection practices and techniques: a. Apply investigation and inspection processes and policies to events.	Field Investigator Training Course	Exp, TA

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B253

B254

3.	Knowledge of scientific principles and techniques.	Intro to groundwater investigations Principles and techniques of risk assessment Hazardous materials constituents 40CFR - 260-270 Sampling techniques (QAQC) Chain of custody Soil, surface and groundwater, waste Utilize reference books Basic statistics Intro to closure/post closure Remediation techniques English grammar 101	Exp, OJT, TA
4	Skill in planning and organizing routine technical work.	Time Management Project Management Tools and Techniques Seven Habits of Highly Successful People	Exp, TA
5.	Skill in communicating effectively with the public, regulated community and professional groups.	Writing That Speaks! Conflict management (dealing with difficult people) Presentation Skills Public service skills (customer service) Negotiation and settlement (political interactions) Conducting and controlling meetings Facilitation skills	Exp, TA
6.	Skill in exercising good judgement.		Exp
7.	Skill in making technically sound decisions.	Basic scientific laws and techniques	Exp
8.	Skill in functioning as a member of a team.	Team building	Exp, TA
9.	Skill in using word processing and database computer programs.	WP6.1 Quattro Pro Paradox FoxPro	Exp, TA

Training Topics Worksheet
for
(Enforcement Coordinator II)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1.	Knowledge of and ability to interpret applicable local, state and federal ordinances and laws.	Air permitting 30TAC, Chapter 305	Exp
2	Knowledge of organization and structure of other state and federal agencies with jurisdiction over environmental protection regulations.		Exp
3.	Knowledge of environmental and/or engineering principles in the field of industrial or municipal solid waste, petroleum storage tanks, air pollution, waste pollution, or water resource management.	Specialized technical courses	Exp, TA
4.	Knowledge of environmental monitoring techniques and analysis.	Basic statistics Sampling techniques Advanced groundwater investigation	Exp, TA
5.	Skill in effectively planning, organizing, and completing moderately complex technical work.	Orientation to Supervisory Skills Seven Habits of Highly Successful People Project management Time Management Personal organization	Exp, TA
6.	Skill in preparing and presenting technical papers and studies to professional groups.	Public speaking How to make effective technical presentations	Exp, TA

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B256

7.	Skill in assisting in managing and planning group efforts on environmental activities.		Exp
8.	Skill in communicating effectively with the public, regulated community and professional groups.		Exp
9.	Skill in reviewing reports and studies for technical correctness.		Exp
10.	Skill in exercising good judgement.		Exp
11.	Skill in making technically sound decisions.		Exp
12.	Skill in functioning as a member of a team.		Exp
13.	Skill in using word processing and database computer programs.		Exp, TA

Training Topics Worksheet
for
(Enforcement Coordinator III)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1	Knowledge of and ability to interpret applicable local, state and federal ordinances and laws.		Exp
2.	Knowledge of organization and structure of the environmental protection organizations.	Structure of environmental organizations	Exp
3.	Knowledge of environmental and/or engineering principles in the field of industrial or municipal solid waste, petroleum storage tanks, air pollution, water pollution or water resource management.	Specialized technical (TBD) Superfund risk assessment	Exp, TA
4.	Knowledge of environmental monitoring techniques and analysis.		Exp
5.	Skill in effectively planning, directing and leading technical work.		Exp
6.	Skill in preparing and presenting complex technical papers and studies to professional groups.	Advanced technical writing Advanced presentation skills Advanced communication techniques Advanced organizing communications (appropriateness)	Exp, TA
7.	Skill in managing and planning group efforts on environmental activities.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B257

B258

8.	Skill in communicating effectively with the public, regulated community and professional groups under difficult conditions.	Expert Witness Course	Exp, TA
9.	Skill in reviewing complex reports and studies for technical correctness.	English grammar	Exp
10.	Skill in exercising good judgement.		Exp
11.	Skill in making technically sound decisions.		Exp
12.	Skill in functioning as member of a team.		Exp
13.	Skill in working with several TNRCC programs or groups.	Introduction to the Programs of the TNRCC	Exp, TA
14.	Skill in using word processing and database computer programs.		Exp, TA
15.	Skill in assisting in planning and developing policies and procedures for the section. a. Rule development procedures b. Small and rural community outreach		Exp, TA

Training Topics Worksheet
for
(Enforcement Coordinator IV)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1.	Knowledge of and ability to interpret applicable local, state and federal ordinances and laws.	Agency policies: air, water, waste, multimedia	Exp, TA
2.	Knowledge of organization and structure of the environmental protection organizations.		Exp
3	Knowledge of environmental and/or engineering principles in the field of industrial or municipal solid waste, petroleum storage tanks, air pollution, water pollution or water resource management.	Advanced risk assessment methodologies Treatment/remediation techniques Goundwater monitoring Fate and transport modeling Aquifer testing Advanced statistics Toxicology Superfund risk assessment Basic chemistry	Exp, TA
4.	Knowledge of environmental monitoring techniques and analysis.		Exp
5.	Skill in effectively planning, directing and leading technical work.	Leadership techniques Coaching skills	Exp, TA
6.	Skill in preparing and presenting complex technical papers and studies to professional groups.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B260

7.	Skill in managing and planning group efforts on environmental activities.		Exp
8.	Skill in communicating effectively with the public, regulated community and professional groups under difficult conditions.		Exp
9.	Skill in reviewing complex reports and studies for technical correctness.		Exp
10.	Skill in exercising good judgement.		Exp
11.	Skill in making technically sound decisions		Exp
12.	Skill in functioning as member of a team.		Exp
13.	Skill in working with several TNRCC programs or groups.		Exp
14.	Skill in using word processing and database computer programs.		Exp
15.	Skill in assisting in planning and developing policies and procedures for the section. a. Rule development procedures b. Small and rural community outreach		Exp

Training Topics Worksheet
for
(Enforcement Coordinator V)

	Knowledge or Skill	Supporting Topic(s)	Source for Satisfying Topic*
1.	Knowledge of and ability to interpret applicable local, state and federal ordinances and laws.		Exp
2.	Knowledge of organization and structure of the environmental protection organizations.		Exp
3	Knowledge of environmental and/or engineering principles in the field of industrial or municipal solid waste, petroleum storage tanks, air pollution, water pollution or water resource management.		Exp
4.	Knowledge of environmental monitoring techniques and analysis.		Exp
5.	Skill in effectively planning, directing and leading technical work.	On-the-Job (OJT) Training	Exp, TA
6.	Skill in preparing and presenting complex technical papers and studies to professional groups.		Exp
7	Skill in managing and planning group efforts on environmental activities.		Exp
8.	Skill in communicating effectively with the public, regulated community and professional groups under difficult conditions.		Exp

* Ed = Education (Academic) OJT = On-the-Job Training
Exp = Experience (Tenure) PR = Professional Requirement (Continuing)
MQ = Minimum Qualification TA = Training Academy

B262

9.	Skill in reviewing complex reports and studies for technical correctness.		Exp
10.	Skill in exercising good judgement.		Exp
11.	Skill in making technically sound decisions.		Exp
12.	Skill in functioning as member of a team.		Exp
13.	Skill in working with several TNRCC programs or groups.		Exp
14.	Skill in using word processing and database computer programs.		Exp
15.	Skill in assisting in planning and developing policies and procedures for the section. a. Rule development procedures b. Small and rural community outreach		Exp

California Air Resources Board
Health, Safety, and Training Checklist

AIR RESOURCES BOARD
COMPLIANCE DIVISION

HEALTH, SAFETY & TRAINING CHECKLIST

February 1997

B265

HEALTH, SAFETY & TRAINING CHECKLIST

As a new employee of the California Air Resources Board's Compliance Division, there are requirements you must meet and responsibilities you must take to ensure your health and safety while performing various duties.

Below is a new employee orientation checklist. The checklist includes training "action" items you are responsible to complete before participating in an inspection. The checklist also includes additional training which management supports to better your performance as an employee of the Compliance Division. All "action" items are required to have your manager's signature as well as your signature upon completion. Action items are indicated by an "*". All questions, should be directed to your manager. Your manager may also have a section orientation program to assist you in your new position.

	Scheduled	*Supervisor*	*Employee*
ADMINISTRATION*			
Annual Physical (new employee)	_____	_____	_____
Annual Checkup	_____	_____	_____
Safety (Equipment)			
Safety Boots	_____	_____	_____
Hard Hat	_____	_____	_____
Eye/Ear Protection	_____	_____	_____
Gloves	_____	_____	_____
Respirators			
Half	_____	_____	_____
Full			
NoMax Coveralls	_____	_____	_____
Photo Identification	_____	_____	_____
Building Access Card	_____	_____	_____
Business Cards	_____	_____	_____
General Services Card	_____	_____	_____
Telephone Card	_____	_____	_____
Copy of Injury & Illness Prevention Plan	_____	_____	_____

Toxic Exposure Record	_____	_____	_____
PES Account No.	_____	_____	_____

Training is a key element in the Compliance Division. The management strongly encourages all employees to take as much training as possible in the betterment of not only the employee, but also as a representative of the Compliance Division. An explanation of the various courses is attached for your information. Any questions, please direct them to your manager.

TRAINING

Fundamentals of Enforcement (FOE)*

This program is designed to train air pollution control professionals on the fundamental air pollution issues and, in particular, on visible emission evaluations. The FOE program is required for Compliance Division personnel.

	Scheduled	*Passed/Failed*	*Supervisor*	*Employee*
Fundamentals of Enforcement	_____	_____	_____	_____

Uniform Air Quality Training Program (UAQTP) - 100 Series*

The UAQTP is a week-long series of 15 courses providing a comprehensive introduction to air pollution, air pollution control, and the basics of compliance inspections. The program is intended for entry-level compliance inspectors, regulatory agency staff, and environmental specialists in business and government. As an employee in the Compliance Division, you are required to attend all these courses in addition to FOE and the Enforcement Symposium, before receiving your badge.

	Scheduled	*Passed/Failed*	*Supervisor*	*Employee*
101 - History	_____	_____	_____	_____
102 - Meteorology	_____	_____	_____	_____
103 - Classification of Air Pollutants	_____	_____	_____	_____
104 - Inspector Safety	_____	_____	_____	_____
105 - Regulatory Develop.	_____	_____	_____	_____
106 - Inspection/Report	_____	_____	_____	_____
107 - Basic Equipment	_____	_____	_____	_____
108 - Intro VEE	_____	_____	_____	_____
109 - Complaint Response	_____	_____	_____	_____
110 - Sampling	_____	_____	_____	_____
111 - Chemistry	_____	_____	_____	_____

112 - Environmental Law	_____	_____	_____	_____
113 - Inspector Conduct	_____	_____	_____	_____
114 - Monitoring Concepts	_____	_____	_____	_____
115 - Interfacing	_____	_____	_____	_____

Uniform Air Quality Training Program (UAQTP) - 200 Series (Optional)

The 200 series courses offer advanced training in a wide variety of source specific industrial processes and air pollution control equipment involving actual on-site "mock" inspections. Each 200 series course covers general process descriptions for the specific industrial category, emissions of concern, applicable air pollution regulations and compliance inspection techniques. These courses are job-related courses designed to assure adequate performance in current assignments.

	Scheduled	*Passed/Failed*	*Supervisor*	*Employee*
202 - Health & Safety	_____	_____	_____	_____
210 - Gasoline Cargo Tanks	_____	_____	_____	_____
211 - Fuel Specification	_____	_____	_____	_____
214 - Ag/Forestry Burn.	_____	_____	_____	_____
221 - CEM	_____	_____	_____	_____
222 - Ambient Monitor.	_____	_____	_____	_____
224 - Obser. Source Tests	_____	_____	_____	_____
230 - Surface Coating: Metal Parts	_____	_____	_____	_____
230.1 - Surface Coating: Aerospace	_____	_____	_____	_____
230.2 - Surface Coating: Auto Refinish.	_____	_____	_____	_____
230.3 - Metal Container, Closure & Coil	_____	_____	_____	_____
230.4 - Graphic Arts	_____	_____	_____	_____
242 - Hot Mix Asphalt	_____	_____	_____	_____
243 - Aggregate Plants	_____	_____	_____	_____
244 - Concrete Batch Plants	_____	_____	_____	_____
245 - Cement Plants	_____	_____	_____	_____
251 - Asbestos Demo/Renov .	_____	_____	_____	_____
260 - Oil Field Production	_____	_____	_____	_____
262 - VOC Inspections	_____	_____	_____	_____
263 - Gasoline Facilities: Phase I & II	_____	_____	_____	_____
264 - Air to Liquid Ratio	_____	_____	_____	_____
270 - Incinerators	_____	_____	_____	_____
271 - IC Engines	_____	_____	_____	_____
272 - Stat. Gas Turbines	_____	_____	_____	_____
281 - ESP	_____	_____	_____	_____

282 - Baghouses	_____	_____	_____	_____
283 - Soil Decontamination	_____	_____	_____	_____
284 - VOC Controls	_____	_____	_____	_____
287 - Dry Cleaning	_____	_____	_____	_____
288 - Petroleum Refining	_____	_____	_____	_____

Uniform Air Quality Training Program (UAQTP) - 300 Series

The 300 series courses are comprised of symposiums, seminars, and workshops that address current environmental issues such as cross media training, legal issues, case development and variance/hearing board requirements.

	Scheduled	*Passed/Failed*	*Supervisor*	*Employee*
300 - Symposium*	_____	_____	_____	_____
321 - Variance Workshop	_____	_____	_____	_____
322 - Advance Variance	_____	_____	_____	_____
340 - Gasoline Facilities: Phase I & II	_____	_____	_____	_____
350 - Mutual Settlement	_____	_____	_____	_____
387 - Dry Cleaner ATCM	_____	_____	_____	_____

ENFORCEMENT*

	Scheduled	*Passed/Failed*	*Supervisor*	*Employee*
VEE Recertification (6 months)	_____	_____	_____	_____
SCOTT/SCRAM (6 months)	_____	_____	_____	_____
CPR (1 year)	_____	_____	_____	_____
First Aid (3 years)	_____	_____	_____	_____
Driver's Training (4 years)	_____	_____	_____	_____
HazMat (1 year)	_____	_____	_____	_____

Pennsylvania Long-Term Training Plan

B272

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF AIR QUALITY

LONG-TERM TRAINING PLAN

NOVEMBER 1995

10/27/93
Revised 10/31/95

BUREAU OF AIR QUALITY
LONG-TERM TRAINING PLAN

The objective of this program is to provide guidelines for the training of both regional and central office employees of the Bureau of Air Quality. The generic guidelines are divided into the following four areas:

1) New Employees
2) Technical Training
3) Supervisory Training
4) Career Development
5) Secretarial

New Employees

The majority of candidates for entry level positions are college graduates with degrees in engineering or one of the natural sciences. Other than general environmental education, most have little or no course work or experience with air quality control. This training guide is designed to provide the knowledge and skills necessary to perform those duties and responsibilities fundamental to the Bureau of Air Quality.

During the first year of employement, a work-training plan will be followed in order that the new employee is satisfactorily oriented regarding the Department's policies and procedures, the Bureau's various programs, the requirements of the Pennsylvania Air Pollution Control Act and its Rules and Regulations. It will be the responsibility of management and supervisory staff of the Bureau to insure that this program is completed.

Technical Training

Duty assignment for technical employees will vary depending on the assigned area of responsibility. Training will be necessary to provide the knowledge required to address specific types of pollutants, industries, new technology, etc. The training recommended in Table I (attached) is organized by regional work unit and central office section. This training should be taken as work assignments require, and to keep abreast of emerging technology, usually through professional or industrial conferences.

Supervisory

Most employees are promoted into supervisory positions based on technical merit with only some subjective appraisal of

supervisory/management skills. The training guidelines offered here will focus on the initial supervisory training as well as courses needed to maintain a level of expertise.

Supervisory Academy
Performance Evaluations
Interviewing and Selection Course
Interaction Management
Affirmative Action Workshop
Americans with Disabilities Act
Project Management

Career Development

The Department should provide employees an opportunity to participate in training to improve their technical and non-technical skills and abilities and/or prepare for possible promotions. Such career development training must be tailored to the individual, course availability and resources. Listed below are areas to be considered for career development training. Training will also be made available (In-House and Out-Service) to staff relative to program areas impacted by Federal/State legislation.

Communication Skills (verbal & written)
Negotiation Skills
Managing in the Public Sector
Technical/Environmental Studies at Accredited
Colleges and Universities
New Federal/State Regulations
Inter/Intra Bureau Assignments
Conflict Management

Secretarial

Secretarial employees must possess the clerical skills (typing, shorthand, etc.) necessary to meet job specifications to be eligible for employment. However, it is important that the Department orient these employees regarding the organiztion, provide appropriate PC training and in-house training relative to administrative procedures. Additional training should be provided in the other areas listed below to develop skills and abilities appropriate to the individual job assignment.

DEP Orientation
Success Skills for Secretaries
How to Proofread
Develop your Image as a Successful Woman
Computer Training
Time Management
Priorities Management
Management Techniques for Secretaries
DEP Clerical Conference
Miscellaneous Conferences & Workshops

TABLE I

LONG-TERM TRAINING PLAN

ASSISTANT DIRECTOR'S OFFICE
MANAGEMENT INFORMATION & ANALYSIS SECTION

Management Training:

Conflict Negotiations
Management Techniques

Computer Training:

Advanced Training in Microsoft Access
Annual Environmental Computing Conference
Formal X.12 EDI training
Systems Analysis/Design
Coding Training
Oracle Training

Professional Conferences

Annual EPA Emission Inventory Conference
Quarterly X.12 Conference
Annual AIRS Conference
Annual AWMA Conference
Annual AIChE Conference

Miscellaneous

Data Modeling
Miscellaneous Telecourses

TABLE I

LONG-TERM TRAINING PLAN

DIVISION OF COMPLIANCE AND ENFORCEMENT

	Compliance Certification Section	Continuous Compliance Section	Abatement Monitoring Section
Air Toxics:			
Introduction to Air Toxics (#400)	X	X	X
Site Specific Monitoring for Air Toxics			X
Air Toxics Conference Conducted by AWMA			X
EPA/Professional Air Toxics Workshops			
Stack Testing:			
Continuous Emission Monitoring (#474)		X	
CEM Level II Inspection Techniques - In-House		X	X
Source Sampling for Particulates (#450)		X	X
Source Sampling for Gaseous Pollutants (#468)		X	X
EPA/Professional Source Sampling Workshops		X	
Inspection Methods:			
Hospital Waste Incineration			X
Control Measures for CO, O_3, and NO_X	X	X	X
Control of Particulate Emissions	X	X	X
Sources & Control of VOCs	X	X	X
Combustion Evaluation			X
Inspection Procedures and Safety	X	X	X
Air Pollution Field Enforcement	X	X	X
Baseline Source Inspection Techniques	X	X	X
Advanced Inspection Techniques	X	X	X
Fugitive VOC Leak Detection	X		X

	Compliance Certification Section	Continuous Compliance Section	Abatement Monitoring Section
EPA/Professional Inspection Workshops	X	X	X
Asbestos:			
Asbestos Haz. Eval. & Abate. Workshop			X
Practice & Procedure in Asbestos Control			X
Inspection/Manag. Plan. for Asb. Control			X
Asbestos Contractor Certification			X
Asbestos Haz. Emerg. Response Act Workshop			X
Asbestos Conferences conducted by AWMA			X
EPA/Professional Asbestos Workshops			X
Hazardous Waste & Emergency Response:			
Hazardous Waste Incineration			X
Air Surv. for Haz. Waste Materials			X
Personnel Protection & Safety			X
Environmental Risk Assessment			X
Haz. Waste Conferences conducted by AWMA			X
EPA/Professional Hazardous Waste Workshops			X
Other:			
Levels I, II and III	X	X	X
Other EPA, AWMA, NARAMA, etc. Professinal Workshops, Seminars, Conferences & Training	X	X	X
Clean Air Act Amendment Related Conferences/ Workshops, Seminars	X	X	X
Air Pollution Control Orientation (SI422)	X	X	X
Introduction to Environmental Statistics (SI473)	X	X	X
Gasoline Vapor Control	X		
In-field Experience	X	X	X

	Compliance Certification Section	Continuous Compliance Section	Abatement Monitoring Section
Department Provided Courses: Conflict Management, Negotiations Workshops, Supervisory Academy, ADA, Etc.	X	X	X
Writing Workshop	X	X	X
Computer Training	X	X	X
Miscellaneous Telecourses	X	X	X

TABLE I

LONG-TERM TRAINING PLAN

DIVISION OF AIR RESOURCE MANAGEMENT

	Mobile Sources Section	Stationary Sources Section	Air Quality Modeling Section
Air Toxics:			
Introduction to Air Toxics (#400)	X	X	X
Air Toxics Modeling Seminar			X
Data Handling:			
Introduction to Environmental Statistics	X	X	X
Statistical Eval. Methods for Air Poll. Data	X	X	X
Inspection Methods:			
Control Measures for CO, O_3, and NO_X	X	X	
Control of Gaseous Emissions		X	
Sources & Control of VOCs	X	X	
Combustion Evaluation		X	
EPA/Professional Workshops	X	X	X
Hazardous Waste & Emergency Response:			
Hazardous Waste Incineration			X
Environmental Risk Assessment		X	X
Meteorology:			
Dispersion Models-Fundamentals	X	X	X
Air Pollutant Dispersion Modeling			X
EPA/Professional Meteorology Workshops			X

	Mobile Sources Section	Stationary Sources Section	Air Quality Modeling Section
Other:			
Levels I, II and III	X	X	X
Other EPA, AWMA, MARAMA, etc. Professional Workshops, Seminars and Training	X	X	X
Computer Training	X	X	X
Department Provided Courses: Conflict Management, Negotiations Workshops, Supervisory Academy, ADA, Etc.	X	X	X
Miscellaneous Telecourses	X	X	X
Clean Air Act Amendments:			
Enhanced Monitoring		X	
NO_X RACT		X	
Oxyfuel	X		
Title V Permits		X	X
New Source Review		X	X
Surface Coating Reg. Enforcement		X	

TABLE I

LONG-TERM TRAINING PLAN

DIVISION OF AIR QUALITY MONITORING

Air Toxics:	Toxics Monitoring Section	Central Operations Section	Field Operations Section
Introduction to Air Toxics (#400)	X		
Site Specific Monitoring for Air Toxics	X		
Air Toxics Sampling Equipment Operations	X		
Air Toxics Conferences Conducted by AWMA	X		
EPA/Professional Air Toxics Workshops	X		
Asbestos:			
Asbestos Monitoring & Audit Procedures	X		
Source Testing:			
Continuous Emission Monitoring (#474)			
Source Sampling for Particulates (#450)	X		
Source Sampl. for Gaseous Pollutants (#468)	X		
Ambient Air Quality Monitoring			
Introduction to Ambient Air Monitoring (#434)	X	X	X
Atmospheric Sampling (#435)	X	X	X
Site Selection for Monitoring of Specific Pollutants (#436-439)	X	X	X
COPAMS Central & Remote Station Operation & Maintenance		X	X
Operation & Maintenance of Specific Sensors		X	X
Analytical Methods for Air Quality Standards (#464)	X	X	
EPA/Professional Monitoring Workshops	X	X	X

	Toxics Monitoring Section	Central Operations Section	Field Operations Section
Quality Assurance:			
General QA Consideration for Ambient Air Monitroing (#471)	X	X	
PA Quality Assurance and Audit Procedures	X	X	X
Quality Assurance for Air Pollution Measurement Systems (#470)	X	X	
Data Handling:			
Introduction to Environmental Statistics (#473)	X	X	
Statistical Evaluation Methods for Air Pollution Data (#426)	X	X	
Chain of Custody Procedures for Samples and Data (#443)	X		
COPAMS Operating Systems		X	X
Specific Microprocessor Languages (Assembly, C, Fortran, BASIC)	X	X	X
Specific Computer Software/Hardware (DEC, SUNX)	X	X	X
Specialty Conferences, Workshops & Seminars	X	X	X
Inspection Methods:			
Control of Particulate Emissions (#413)	X		
Control of Gaseous Emissions (#415)	X		
Sources & Control of VOCs (#482)	X		
Inspection Procedures & Safety (#446)	X		
Fugitive VOC Leak Detection (#456)	X		
Hazardous Waste & Emergency Response:			
Hazardous Waste Incineration (#502)	X		

	Toxics Monitoring Section	Central Operations Section	Field Operations Section
Air Surv. for Haz. Waste Materials (#165.4)	X		
Personnel Protection & Safety (#165.2)	X	X	X
Environmental Risk Assessment (#165.6)	X		
Haz. Waste Conferences conducted by AWMA	X		
Advanced Air Sampling for Hazardous Materials (#165.16)	X		
EPA/Professional Hazardous Waste Workshops	X		
Meteorology:			
Basic Air Pollution Meteorology (#409)	X	X	X
Introduction to Dispersion Modeling (#410)	X		
Air Pollution Dispersion Modeling (#423)	X		
Safety:			
American Red Cross Basic First Aid	X	X	X
Cardiopulmonary Resuscitation	X	X	X
Compressed Cylinder Safety	X	X	X
Safety Workshops & Seminars	X	X	X
Other:			
Level I	X	X	X
Level II	X		
Level III	X		
Other EPA, AWMA, NARAMA, etc. Professinal Workshops, Seminars, Conferences & Training	X	X	X
Miscellaneous Telecourses	X	X	X

	Toxics Monitoring Section	Central Operations Section	Field Operations Section
Indoor Air Monitoring & Evaluation	X		
Equipment Manufacturer's Training	X	X	X
Computer Training	X	X	X
Department Provided Courses: Conflict Management, Negotiations Workshops, Supervisory Academy, ADA, Etc.	X	X	X

TABLE I

LONG-TERM TRAINING PLAN

DIVISION OF SOURCE TESTING & MONITORING

	Continuous Emission Monitoring	Source Testing Section
Air Toxics:		
Introduction to Air Toxics (#400)	X	X
Air Toxics Conferences Conducted by AWMA	X	X
EPA/Professional Air Toxics Workshops	X	X
Source Testing:		
Continuous Emission Monitoring (#474)	X	X
Source Sampling for Pollutants (#450)	X	X
Advanced Source Sampling (#457)	X	X
Special Pollutant Sampling Procedures - In-House	X	X
Toxics (M-5, Vost) Sampling & Analysis - In-House	X	X
VOC (M-25) Sampling - In-House	X	X
CEM Operation & Inspection Workshop - In-House (SI476A, 476B)	X	X
PCEMS Operation and Maintenance - In-House	X	X
Specific Equipment Maintenance - In-House	X	X
Air Pollution Control for Selected Industries (SI 431)	X	
NSPS and NESHAPS Sampling	X	X
EPA/Professional Source Sampling Workshops	X	X
Quality Assurance:		
PA Quality Assurance and Audit Procedures	X	X
Quality Assurance for Source Emissions Measurements (#414)	X	X

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	Continuous Emission Monitoring	Source Testing Section
Quality Assurance for Air Pollution Measurement Systems (#470)	X	X
Data Handling:		
Introduction to Environmental Statistics (#473)		X
Chain of Custody Procedures for Samples and Data (#443)	X	X
PCEMS Operating Systems - In-House	X	X
Specific Microprocessor Languages (Assembly, C, Fortran, BASIC)	X	
Specific Computer Software/Hardware (DEC, SUNX, DART and WANG)	X	
Specialty Conferences, Workshops & Seminars	X	X
Inspection Methods:		
Control of Particulate Emissins (#413)	X	X
Control of Gaseous Emissions (#415)	X	X
Sources & Control of VOCs (#482)	X	X
Combustion Evaluation (#427)	X	X
Inspection Procedures & Safety (#446)	X	X
Visible Emissions Observation	X	X
Fugitive VOC Leak Detection (#456)		X
Baseline Source Inspection Techniques (#445)	X	
EPA/Professional Inspection Workshops	X	X
Hazardous Waste & Emergency Response:		
Hazardous Waste Incineration (#502)	X	X

	Continuous Emission Monitoring	Source Testing Section
Personnel Protection & Safety (#165.2)		X
Haz. Materials Incident Response (#165.5)		X
Haz. Waste Conferences conducted by AWMA	X	
EPA/Professional Hazardous Waste Workshops	X	X
Safety:		
American Red Cross Basic First Aid	X	X
Cardiopulmonary Resuscitation	X	X
Compressed Cylinder Safety	X	X
Safety Workshops & Seminars	X	X
AIDS Training	X	X
Other:		
Levels I, II and III	X	X
Equipment Manufacturer's Training	X	X
Control Measures for CO, O_3, and NO_X (#480)	X	
Computer Training	X	X
Other EPA, AWMA, MARAMA, etc. Professinal Workshops, Seminars, Conferences & Training	X	X
Department Provided Courses: Conflict Management, Negotiations Workshops, Supervisory Academy, ADA, Etc.	X	X
Miscellaneous Telecourses	X	X

TABLE I
LONG-TERM TRAINING PLAN

DIVISION OF PERMITS

	New Source Review Section	Technical Support Section
Air Toxics:		
Introduction to Air Toxics (#400)		X
Site Specific Monitoring for Air Toxics		X
Air Toxics Conference Conducted by AWMA		X
Inspection Methods:		
Hospital Waste Incineration	X	X
Control Measures for Co, O_3, and NO_x		X
Control of Particulate Emissions		X
Sources & Control of VOCs	X	X
Combustion Evaluation	X	X
Inspection Procedures and Safety	X	X
Air Pollution Field Enforcement		X
Baseline Source Inspection Techniques	X	X
Advanced Inspection Techniques	X	X
Fugitive VOC Leak Detection	X	X
Hazardous Waste & Emergency Response:		
Hazardous Waste Incineration	X	X
Environmental Risk Assessment	X	X
Haz. Waste Conferences conducted by AWMA	X	X
EPA/Professional Hazardous Waste Workshops	X	X

	New Source Review	Technical Support Section
Other:		
Levels I, II and III	X	X
Air Permitting, A Technical Approach	X	X
Effective Permit Writing (#454)	X	X
Other EPA, AWMA, MARAMA, etc. Professinal Workshops, Seminars, Conferences & Training	X	X
Clean Air Act Amendment Related Conferences, Workshops, Seminars	X	X
Computer Training	X	X
Department Provided Courses: Conflict Management, Negotiations Workshops, Supervisory Academy, ADA, Etc.	X	X
Miscellaneous Telecourses	X	X

TABLE I

LONG-TERM TRAINING PLAN

REGIONAL OFFICES

	Operations	Engineering Services	Title V Section	Special Projects Section
Fundamentals:				
Control of Particulate Emissions (#413)	X	X	X	
Control of Gaseous Emissions (#415)	X	X	X	
Combustion Evaluation (#427)		X	X	
Air Pollution Field Enforcement (#444)	X			
Inspection Procedures & Safety (#446)		X	X	
Baseline Source Inspection Techniques (#445)	X	X	X	
Effective Permit Writing Workshop (#454)		X	X	
Fundamentals of Effective Permit Drafting (SI454)		X	X	
Introduction to Permits (#460)		X	X	
Intermediate Permitting		X	X	
Level I	X	X	X	X
Level II	X	X	X	X
Level III	X	X	X	X
Toxics:				
Introduction to Hazardous Air Pollutants (#400)	X	X	X	X
Risk Assessment Guidance (#165.6)				X
Intro to Risk Assessment/Risk Mgmt (SI400)				X
Intro to Air Pollution Toxicology (SI300)				X
Air Monitoring for Hazardous Materials (#165.4)				X
Urban Air Toxics (SI404)				X
Applied Technology & Risk Assessment				X
Meteorology:				
Air Pollution Dispersion Models (#413)				X

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	Operations	Engineering Services	Title V Section	Special Projects Section
Intro to Dispersion Modeling (SI410)				X
Basic Air Pollution Meteorology (SI409)	X	X	X	X
Inspection Methods:				
Sources & Control of VOCs (#482)	X	X	X	
Control Measures for CO, O3 and NO_X (#480)	X	X	X	
Fugitive VOC Leak Detection (#456)	X		X	X
Multi-media Inspection Training	X			
Asbestos:				
Asbestos Certification & Training	X			X
Asbestos Recertification	X			X
Hazardous Waste:				
Hazardous Waste Incineration (#502)		X		
Hazardous Waste Calculations Workshop (#458)		X		
Hazardous Materials Incident Response (#165.5)	X			X
8 Hr. Refresher - HMIR	X			X
Other:				
Air Pollution Control Orientation (SI 422)	X	X	X	X
EIT and PE Review Courses		X	X	
Source Sampling (In-House)	X	X	X	
Continuous Emission Monitoring - In-House	X	X	X	X
Continuous Emission Monitoring (#474)			X	
Baghouse Plan Review (SI412A)	X	X	X	

	Operations	Engineering Services	Title V Section	Special Projects Section
Electrostatic Precipitator (SI412B)	X	X	X	
Refinery Training	X		X	
Atmospheric Sampling (#435)			X	
Wet Scrubber Plan Review (SI412C)	X	X	X	
Problem Workbook (SI 412D)	X	X	X	
Visible Emissions Certification	X	X	X	X
Computer Training	X	X	X	X
Miscellaneous AWMA, EPA & Other Professional Conferences & Workshops Regarding: Transportation, ETR, RFG, LEVs, Congestion Mitigation, AQ Improvement Program (CMAC), Stage II Vapor Recovery, Pollution Prevention, Emissions Trading, New Control Technologies, Emissions from Waste Treatment Plants, Small Business Assistance Program, Ozone, etc.	X	X	X	X
Department Provided Courses: Technical Academy, Conflict Management, Negotiations Workshops, Supervisory Academy, ADA, Etc.	X	X	X	X
Miscellaneous Telecourses	X	X	X	X
<u>Clean Air Act Amendment:</u>				
New Regulation Overviews	X	X	X	X

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BUREAU OF AIR QUALITY

ENTRY LEVEL
TRAINING PLAN

NOVEMBER 1995

INTRODUCTION

The air program training plan for entry level employees was developed from training guidance provided in previous training plans, new training courses (DER Academy, the new air pollution training center in Piscataway, NJ, etc.) currently available, and updated training needs assessments by both regional and central office managers/supervisors.

The plan is structured to provide easily accessible guidance for all new and technical employees based upon classification (regional offices) and work assignment (central office). The regional offices are all similarly organized and, therefore, work assignment differentiation for the regions is not necessary. In central office, employees in the same classification are assigned to Divisions with diverse work assignments. Therefore, the central office portion of the plan is also segmented by work assignment. The plan is designed to be used as a checklist for scheduling training during new employees' first 18 months to two years.

Additional in-house training for implementation of new regulations will be developed in consultation with the regional offices and provided to the degree staff time is available. This type of in-house training may more properly be directed towards supervisors and/or veteran staff as opposed to new employees.

The usual focus life of plans and/or reports is very short. We all tend to file these documents on a shelf or in a drawer pending eventual disposal when space is needed for something else.

Hopefully, all air program managers and supervisors will recognize that this plan can and should be a ready reference for both scheduling training and an ongoing review of training status for all new employees.

REGIONAL OFFICES

ENTRY LEVEL POSITIONS

1) ENVIRONMENTAL TRAINEE

2) AIR POLLUTION CONTROL ENGINEER I

3) ENVIRONMENTAL CHEMIST I

REGIONAL OFFICES

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL TRAINEES

General Statement of Purpose

To be able to aid in resolving existing and potential air pollution problems and to take appropriate action to prevent problems from occurring. Such actions shall be accomplished in a manner consistent with the Pennsylvania Air Pollution Control Act, the Rules and Regulations of the Department, the Federal Clean Air Act and Department Policy.

ON-THE-JOB TRAINING:

Through self-study and discussions with supervisor and staff:

1. Gain a working knowledge of:

   a. Air Pollution Control Act both state and federal
   b. Air Quality Rules and Regulations
   c. Air Quality Policy and Procedures (Permit Manual)
   d. Federal regulations (PSD, NSPS, NSR and NESHAP)

2. Gain understanding of the role of the Air Quality Specialist.

   a. Become familiar with the goals of Regional Air Quality Program.
   b. Become familiar with the functions of the Engineering Services Section and the Operations Section.
   c. Become familiar with the types of air contamination sources, how they work and what air contaminants are emitted.
   d. Become familiar with the types of air pollution control equipment, how they work and where they are applied.

3. Gain ability to conduct inspections of air contamination sources for reissuance of permits and for determining compliance.

   a. Become familiar with inspection techniques and documentation methods.
   b. Become familiar with how to prepare operating permit.
   c. Become familiar with what plan approvals and plan approval applications are and the information available in them.
   d. Become familiar with how the permit system is used to maintain compliance.
   e. Learn to use available equipment in performing inspections.
   f. Learn to interpret source test results.
   g. Become familiar with the emission reports generated from continuous emission monitoring systems.

4. Gain ability to be an effective field inspector.

   a. Become familiar with the compliance tracking system.

b. Learn how complaint investigations are handled.
c. Develop fact finding and observation skills.
d. Realize importance of documenting observations.
e. Learn techniques to effectively and politely communicate with complainant(s) and source owner(s).
f. Become familiar with the procedures contained in the Field Activity Guidelines.
g. Learn to write Notice of Violations (NOV).
h. Become familiar with the various forms of enforcement that can be used where noncompliance is found.
i. Become familiar with the methods, procedures and areas of concern which are addressed in a facility compliance inspection.
j. Become familiar with the requirements of the Compliance History Forms.
k. Become familiar with inspection report formats.
can be used.

5. Gain basic understanding of the emission inventory systems - AIMS.

a. Learn to identify those sources of air contaminant emissions which should be included in the system.
b. Learn to calculate allowable, actual and potential emission rates for sources and understand the importance of these.
c. Become familiar with the various methods used to obtain pertinent information and how to input it to the system.
d. Learn to conduct desk and onsite audits, utilizing procedural handbook.
e. Become familiar with the Air Toxics program and when emissions from these sources should be input to the system.
f. Understand how to use Standard Industrial Classification (SIC) Codes.

6. Gain basic understanding of other Air Quality Program functions.

a. Learn the role of the Engineering Services Section in your region.
b. Understand the district office boundaries.
c. Be able to take a complaint from the public and be able to refer it to the complaint tracking system.
d. Learn what the Department's meteorologist does.
e. Learn the role of Technical Services in relation to stack test and CEM reviews.
f. Learn enforcement options and role of compliance specialists.
g. Become acquainted with new Permit Regulations (Title V).
h. Become acquainted with Act 14 regarding municipal notification.
i. Become acquainted with the permit and emission fee systems.

7. Gain basic understanding of the Asbestos and Air Toxics programs.

a. Learn to conduct asbestos inspections to confirm compliance with 40 CFR Part 61, Subpart (M).
b. Develop an understanding of the Air Toxics Program which is developing out of the requirements incorporated in Title III and Title V of the 1990 Federal Clean Air Act.

8. Be aware of safety equipment needs and uses during inspections. At all times demonstrate safety awareness — when in doubt, ask!

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Level II: Basic Source Inspection Techniques Visible Emission Enforcement Training Evaluation of Stationary Source Emission Capture, Transport & Testing Systems Continuous Emissions Monitoring Systems VOC Sampling & Analysis	Yes	EPA	Classroom
Level III: Combustion Source Inspection Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop General VOC Source Regulation & Inspection VOC Fugitive Emissions	Yes	EPA	Classroom
Hazardous Materials Incident Response Operations	Yes	EPA	Classroom/ Hands On
Asbestos Supervisor/Inspector	Yes	Dept. of Welfare	Classroom/ Hands On
Continuous Emission Monitoring	Yes	EPA	Classroom/ Hands On
Visible Emissions Certification	Yes	EPA	Hands On
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy: Lab Orientation First Aid/CPR	Yes	DEP	Classroom/ Hands On

Right-to-Know
Ethics
Lyme Disease Prevention
Slip/Trip/Fall Hazard Avoidance
AIDS
Conflict Communications
Industry Perspective of DER
Media Relations
Risk Communications/Conflict
Legal: Components of the Regulatory Complaint Process
Enforcement Tools
Negotiation Skills
Wetlands
Erosion/Sediment Control
Intro to Computer Sys Available at DER
Defensive Driving
Confined Space
Disaster Awareness
Orienteering
Inspection Procedures
Mock Inspections
Legal: Evidence Handling
Interviewing Techniques/Exercise
Truck/Vehicles/Containers
Access and Entry Issues
Multimedia Inspections

IN-HOUSE TRAINING:

AIMS Training	Yes	AQ Staff	Hands On
CEM Training	Yes	AQ Staff	Hands On
Stack Test Training	Yes	AQ Staff	Hands On
PANS Training	Yes	AQ Staff	Hands On

GENERIC TRAINING PLAN FOR
AIR POLLUTION CONTROL ENGINEERS I

General Statement of Purpose

To be able to complete engineering review of applications for issuance of DER plan approval. Such reviews shall be performed for conformance with regulatory requirements, program policy and sound engineering principles and practices. Also, perform inspections of sources granted plan approval to determine compliance with the conditions of the plan approval.

Through self-study and discussions with supervisor and staff:

ON-THE-JOB TRAINING:

1. Gain a working knowledge of:

   a. Air Pollution Control Act both state and federal
   b. Air Quality Rules and Regulations
   c. Air Quality Policy and Procedures (Permit Manual)
   d. Federal regulations (PSD, NSPS, NSR and NESHAPS)

2. Gain ability to perform application reviews.

   a. Become familiar with application forms.
   b. Become familiar with review memo and formats of plan approval and how to prepare these documents.
   c. Become familiar with the types of air contamination sources, how they work and what air contaminants are emitted.
   d. Become familiar with the types of air pollution control equipment, how they work and where they are applied.

3. Gain ability to conduct permit inspections.

   a. Become familiar with operating permit inspection techniques and documentation methods.
   b. Become familiar with how to prepare operating permit.
   c. Learn to use available equipment in performing inspections to determine operation parameter.

4. Gain basic understanding of source tests and their use in completing reviews and determining compliance.

   a. Become familiar with source testing procedures.
   b. Become familiar with source test report, pre-test plan and source test observation memo format.
   c. Learn how to interpret source test results.
   d. Learn to observe source test.

5. Gain basic understanding of continuous emission monitoring (CEM) systems and their use in determining compliance.

   a. Become familiar with various types of CEM systems.
   b. Become familiar with the CEM Manual.

6. Gain basic understanding of other Air Quality Program functions and their use in performing permit reviews.

   a. Learn what information is available from the PEDS/AIMS systems.
   b. Understand the district office boundaries.
   c. Be able to take a complaint from the public and be able to refer it to the appropriate district.
   d. Learn what the Department's meteorologist role is in permit reviews.
   e. Learn the role of Technical Services in relation to stack tests and CEM reviews.
   f. Learn enforcement options and role of compliance specialists.

7. Be aware of safety equipment needs and uses during inspections. At all times demonstrate safety awareness -- when in doubt, ask!

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Level II: Basic Source Inspection Techniques Visible Emission Enforcement Training Evaluation of Stationary Source Emission Capture, Transport & Testing Systems Continuous Emissions Monitoring Systems VOC Sampling & Analysis	Yes	EPA	Classroom
Level III: Combustion Source Inspection Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop General VOC Source Regulation & Inspection VOC Fugitive Emissions	Yes	EPA	Classroom
Introduction to Permits	Yes	EPA	Classroom
Combustion Evaluation	Yes	EPA	Classroom
Control of Particulate Emissions	Yes	EPA	Classroom

Control of Gaseous Emissions	Yes	EPA	Classroom
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
IN-SERVICE TRAINING:			
DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DER			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DER			
Defensive Driving			
Confined Space			
Disaster Awareness			
Orienteering			
Philosophy of Permitting			
Types of Permits			
Permit Process Overview			
Coordinated Permits			
Reviewing of Applications			
Compliance History			
Financial Responsibility			
Public Access to Files			
Public Meetings			
Legal Requirements			
Writing a Permit			
Permit Action			
Appeals			
Understanding Roles/Relationships			
IN-HOUSE TRAINING:			
AIMS Training	Yes	AQ Staff	Classroom
NO_X RACT	Yes	AQ Staff	Classroom

Title V Permitting	Yes	AQ Staff	Classroom
CEM Training	Yes	AQ Staff	Hands On
Stack Test Training	Yes	AQ Staff	Hands On

REGIONAL OFFICES

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL CHEMISTS

ON-THE-JOB TRAINING:

Objective	Method
Understanding the role of the Environmental Chemist	Self-Study Discussion
Understanding State Air Quality Control regulations	Self-Study Discussion
Understanding the operation of analytical equipment	Self-Study Discussion Vendor Training
Understanding functional units within the Bureau	Self-Study Discussion
Be able to track and report test results	Self-Study Discussion
Be able to conduct compliance inspections	Observation
Safety	Observation

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Level II: Basic Source Inspection Techniques Visible Emission Enforcement Training Evaluation of Stationary Source Emission Capture, Transport & Testing Systems Continuous Emissions Monitoring Systems VOC Sampling & Analysis	Yes	EPA	Classroom
Level III: Combustion Source Inspection Asbestos NESHAP Demolition & Renovation	Yes	EPA	Classroom

Inspection Procedures Workshop General VOC Source Regulation & Inspection VOC Fugitive Emissions			
Introduction to Air Toxics	Yes	EPA	Classroom
Hazardous Materials Incident Response Operations	Yes	EPA	Classroom/ Hands On
IN-SERVICE TRAINING:			
DEP Orientation	Yes	DEP	Classroom
DEP Academy: Lab Orientation First Aid/CPR Right-to-Know Ethics Lyme Disease Prevention Slip/Trip/Fall Hazard Avoidance AIDS Conflict Communications Industry Perspective of DER Media Relations Risk Communications/Conflict Legal: Components of the Regulatory Complaint Process Enforcement Tools Negotiation Skills Wetlands Erosion/Sediment Control Intro to Computer Sys Available at DER Defensive Driving Confined Space Disaster Awareness Orienteering Optional Break-Out Sessions	Yes	DEP	Classroom/ Hands On
IN-HOUSE TRAINING:			
NO_x RACT	Yes	AQ Staff	Classroom
Title V Permitting	Yes	AQ Staff	Classroom

CENTRAL OFFICE

ENTRY LEVEL POSITIONS

1) ENVIRONMENTAL TRAINEE

2) AIR POLLUTION CONTROL ENGINEER I

3) ENVIRONMENTAL CHEMIST I

4) AIR POLLUTION METEOROLOGIST I

5) AIR MONITORING EQUIPMENT SPECIALIST

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR POLLUTION METEOROLOGISTS I

DIVISION OF AIR RESOURCE MANAGEMENT,
AIR QUALITY MODELING SECTION:

ON-THE-JOB TRAINING:

The general purpose of this training is to understand the Bureau of Air Quality Control's air resource management program covering mobile sources, stationary sources, and meteorological sections. The training plan for succeeding years varies with specific job title, duties and responsibilities.

Through self-study and discussion with supervisor and staff, gain a working knowledge of:

a. Air Pollution Control Act
b. Rules and Regulations
c. Emission Inventory System (AIMS)
d. Permit Manual
e. Federal Regulations including PSD, NSPS and NESHAPS
f. Textbooks and other background materials available

Become familiar with techniques to estimate emissions from point, area, highway, off-road, and modeling sources.

Become acquainted with regional inspection reports.

Become acquainted with the permit database. Similarly, become familiar with EPA Bulletin Boards and Clearinghouse.

Begin writing simple reports and memos, and answer Bureau correspondence under close supervision to understand proper office procedures and formats.

Become familiar with the role of source tests and continuous emission monitors (CEMS).

As an observer, attend meetings concerning OTC, ROMNET, etc. air quality issues. Attend staff meetings.

As arrangements can be made, spend time with regional and other personnel conducting inspections, witnessing sources tests, auditing the operating of CEMs, and other activities.

	Currently Provided	Provided By	Method
OUT-SERVICE TRAINING:			
Computer Courses:			
Excel	Yes	Sunrise	Hands On

Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy: Lab Orientation First Aid/CPR Right-to-Know Ethics Lyme Disease Prevention Slip/Trip/Fall Hazard Avoidance AIDS Conflict Communications Industry Perspective of DER Media Relations Risk Communications/Conflict Legal: Components of the Regulatory Complaint Process Enforcement Tools Negotiation Skills Wetlands Erosion/Sediment Control Intro to Computer Sys Available at DER Defensive Driving Confined Space Disaster Awareness Orienteering Optional Break-Out Sessions	Yes	DEP	Classroom/ Hands On

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands On
Mobile 5A	Yes	AQ Staff	Hands On
EPA Self-Study and Correspondence Courses:	Yes	EPA	
SI:422 - Air Pollution Control Orientation Course SI:451 - Introduction to PM_{10} SIP Development SI:409 - Basic Air Pollution Meteorology SI:410 - Introduction to Dispersion Modeling SI:473A - Beginning Environmental Statistical Techniques			
Telecourses:			
0480 - Control Measures for CO, O3, and NO_x	Yes	EPA	

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL TRAINEES

DIVISION OF AIR RESOURCE MANAGEMENT,
MOBILE SOURCES SECTION:

ON-THE-JOB TRAINING:

The general purpose of this training is to understand the Bureau of Air Quality Control's air resource management program covering mobile sources, stationary sources, and meteorological sections. The training plan for succeeding years varies with specific job title, duties and responsibilities.

Through self-study and discussion with supervisor and staff, gain a working knowledge of:

a. Air Pollution Control Act
b. Rules and Regulations
c. Emission Inventory System (AIMS)
d. Permit Manual
e. Federal Regulations including PSD, NSPS and NESHAPS
f. Textbooks and other background materials available

Become familiar with techniques to estimate emissions from point, area, highway, off-road, and biogenic sources.

Become acquainted with regional inspection reports.

Become acquainted with the permit database. Similarly, become familiar with EPA Bulletin Boards and Clearinghouse.

Begin writing simple reports and memos, and answer Bureau correspondence under close supervision to understand proper office procedures and formats.

Become familiar with the role of source tests and continuous emission monitors (CEMS).

As an observer, attend meetings concerning OTC, ROMNET, and STAPPA air quality issues. Attend staff meetings.

As arrangements can be made, spend time with regional and other personnel conducting inspections, witnessing sources tests, auditing the operating of CEMs, and other activities.

	Currently Provided	Provided By	Method
OUT-SERVICE TRAINING:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
IN-SERVICE TRAINING:			
DER Orientation	Yes	DER	Classroom
DER Academy:	Yes	DER	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DER			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DER			
Defensive Driving			
Confined Space			
Disaster Awareness			
Orienteering			
Optional Break-Out Sessions			
IN-HOUSE TRAINING:			
ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
Mobile 5A	Yes	AQ Staff	Hands-On
EPA Self-Study and Correspondence Courses:	Yes	EPA	
SI:422 - Air Pollution Control Orientation Course			
SI:451 - Introduction to PM_{10} SIP Development			
SI:409 - Basic Air Pollution Meteorology			

SI:410 - Introduction to Dispersion Modeling
SI:473A - Beginning Environmental Statistical Techniques

Telecourses:

0480 - Control Measures for CO, O3, and NO_x	Yes	EPA

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR POLLUTION CONTROL ENGINEERS I

DIVISION OF AIR RESOURCE MANAGEMENT,
MOBILE SOURCES SECTION:

ON-THE-JOB TRAINING:

The general purpose of this training is to understand the Bureau of Air Quality Control's air resource management program covering mobile sources, stationary sources, and meteorological sections. The training plan for succeeding years varies with specific job title, duties and responsibilities.

Through self-study and discussion with supervisor and staff, gain a working knowledge of:

a. Air Pollution Control Act
b. Rules and Regulations
c. Emission Inventory System (AIMS)
d. Permit Manual
e. Federal Regulations including PSD, NSPS and NESHAPS
f. Textbooks and other background materials available

Become familiar with techniques to estimate emissions from point, area, highway, off-road, and biogenic sources.

Become acquainted with regional inspection reports.

Become acquainted with the permit database. Similarly, become familiar with EPA Bulletin Boards and Clearinghouse.

Begin writing simple reports and memos, and answer Bureau correspondence under close supervision to understand proper office procedures and formats.

Become familiar with the role of source tests and continuous emission monitors (CEMS).

As an observer, attend meetings concerning OTC, ROMNET, and STAPPA air quality issues. Attend staff meetings.

As arrangements can be made, spend time with regional and other personnel conducting inspections, witnessing sources tests, auditing the operating of CEMs, and other activities.

	Currently Provided	Provided By	Method
OUT-SERVICE TRAINING:			
Level I:			
Fundamentals of Environ. Comp. Inspections.	Yes	EPA	Classroom
Basic Health & Safety for Field Activities			
Respiratory Protection & Use of Safety Equipment			
Principles & Practice of Air Poll. Control			
Level II:	Yes	EPA	Classroom
Basic Source Inspection Techniques			
Visible Emission Enforcement Training			
Evaluation of Stationary Source Emission Capture, Transport & Testing Systems			
Continuous Emissions Monitoring Systems			
VOC Sampling & Analysis			
Level III:	Yes	EPA	Classroom
Combustion Source Inspection			
Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop			
General VOC Source Regulation & Inspection			
VOC Fugitive Emissions			
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
IN-SERVICE TRAINING:			
DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DER			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			

Erosion/Sediment Control
Intro to Computer Sys Available at DER
Defensive Driving
Confined Space
Disaster Awareness
Orienteering
Optional Break-Out Sessions

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
Mobile 5A	Yes	AQ Staff	Hands-On
EPA Self-Study and Correspondence Courses:	Yes	EPA	

SI:422 - Air Pollution Control Orientation Course
SI:451 - Introduction to PM_{10} SIP Development
SI:409 - Basic Air Pollution Meteorology
SI:410 - Introduction to Dispersion Modeling
SI:473A - Beginning Environmental Statistical Techniques

Telecourses:

0480 - Control Measures for CO, O3, and NO_x	Yes	EPA

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR POLLUTION CONTROL ENGINEERS I

DIVISION OF AIR RESOURCE MANAGEMENT,
STATIONARY SOURCES SECTION:

ON-THE-JOB TRAINING:

The general purpose of this training is to understand the Bureau of Air Quality Control's air resource management program covering mobile sources, stationary sources, and meteorological sections. The training plan for succeeding years varies with specific job title, duties and responsibilities.

Through self-study and discussion with supervisor and staff, gain a working knowledge of:

a. Air Pollution Control Act
b. Rules and Regulations
c. Emission Inventory System (AIMS)
d. Permit Manual
e. Federal Regulations including PSD, NSPS and NESHAPS
f. Textbooks and other background materials available

Become familiar with techniques to estimate emissions from point, area, highway, off-road, and biogenic sources.

Become acquainted with regional inspection reports.

Become acquainted with the permit database. Similarly, become familiar with EPA Bulletin Boards and Clearinghouse.

Begin writing simple reports and memos, and answer Bureau correspondence under close supervision to understand proper office procedures and formats.

Become familiar with the role of source tests and continuous emission monitors (CEMS).

As an observer, attend meetings concerning OTC, ROMNET, and STAPPA air quality issues. Attend staff meetings.

As arrangements can be made, spend time with regional and other personnel conducting inspections, witnessing sources tests, auditing the operating of CEMs, and other activities.

	Currently Provided	Provided By	Method
OUT-SERVICE TRAINING:			
Level I:			
Fundamentals of Environ. Comp. Inspections.	Yes	EPA	Classroom
Basic Health & Safety for Field Activities			
Respiratory Protection & Use of Safety Equipment			
Principles & Practice of Air Poll. Control			
Level II:	Yes	EPA	Classroom
Basic Source Inspection Techniques			
Visible Emission Enforcement Training			
Evaluation of Stationary Source Emission Capture, Transport & Testing Systems			
Continuous Emissions Monitoring Systems			
VOC Sampling & Analysis			
Level III:	Yes	EPA	Classroom
Combustion Source Inspection			
Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop			
General VOC Source Regulation & Inspection			
VOC Fugitive Emissions			
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
IN-SERVICE TRAINING:			
DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			

Erosion/Sediment Control
Intro to Computer Sys Available at DEP
Defensive Driving
Confined Space
Disaster Awareness
Orienteering
Optional Break-Out Sessions

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
Mobile 5A	Yes	AQ Staff	Hands-On

EPA Self-Study and Correspondence Course: Yes EPA

SI:422 - Air Pollution Control Orientation Course
SI:451 - Introduction to PM_{10} SIP Development
SI:409 - Basic Air Pollution Meteorology
SI:410 - Introduction to Dispersion Modeling
SI:473A - Beginning Environmental Statistical Techniques

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL TRAINEE

DIVISION OF AIR RESOURCE MANAGEMENT,
STATIONARY SOURCES SECTION:

ON-THE-JOB TRAINING:

The general purpose of this training is to understand the Bureau of Air Quality Control's air resource management program covering mobile sources, stationary sources, and meteorological sections. The training plan for succeeding years varies with specific job title, duties and responsibilities.

Through self-study and discussion with supervisor and staff, gain a working knowledge of:

a. Air Pollution Control Act
b. Rules and Regulations
c. Emission Inventory System (AIMS)
d. Permit Manual
e. Federal Regulations including PSD, NSPS and NESHAPS
f. Textbooks and other background materials available

Become familiar with techniques to estimate emissions from point, area, highway, off-road, and biogenic sources.

Become acquainted with regional inspection reports.

Become acquainted with the permit database. Similarly, become familiar with EPA Bulletin Boards and Clearinghouse.

Begin writing simple reports and memos, and answer Bureau correspondence under close supervision to understand proper office procedures and formats.

Become familiar with the role of source tests and continuous emission monitors (CEMS).

As an observer, attend meetings concerning OTC, ROMNET, etc. air quality issues. Attend staff meetings.

As arrangements can be made, spend time with regional and other personnel conducting inspections, witnessing sources tests, auditing the operating of CEMs, and other activities.

	Currently Provided	Provided By	Method
OUT-SERVICE TRAINING:			
Level I:			
Fundamentals of Environ. Comp. Inspections.	Yes	EPA	Classroom
Basic Health & Safety for Field Activities			
Respiratory Protection & Use of Safety Equipment			
Principles & Practice of Air Poll. Control			
Level II:	Yes	EPA	Classroom
Basic Source Inspection Techniques			
Visible Emission Enforcement Training			
Evaluation of Stationary Source Emission Capture, Transport & Testing Systems			
Continuous Emissions Monitoring Systems			
VOC Sampling & Analysis			
Level III:	Yes	EPA	Classroom
Combustion Source Inspection			
Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop			
General VOC Source Regulation & Inspection			
VOC Fugitive Emissions			
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
IN-SERVICE TRAINING:			
DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory			

Complaint Process
Enforcement Tools
Negotiation Skills
Wetlands
Erosion/Sediment Control
Intro to Computer Sys Available at DEP
Defensive Driving
Confined Space
Disaster Awareness
Orienteering
Optional Break-Out Sessions

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
Mobile 5A	Yes	AQ Staff	Hands-On
EPA Self-Study and Correspondence Courses:	Yes	EPA	

SI:422 - Air Pollution Control Orientation Course
SI:451 - Introduction to PM_{10} SIP Development
SI:409 - Basic Air Pollution Meteorology
SI:410 - Introduction to Dispersion Modeling
SI:473A - Beginning Environmental Statistical Techniques

Telecourses:

0480 - Control Measures for CO, O3, and NO_x	Yes	EPA

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL TRAINEE

DIVISION OF COMPLIANCE & ENFORCEMENT,
COMPLIANCE CERTIFICATION SECTION:

ON-THE-JOB TRAINING:

The general purpose of this training is to understand the Bureau of Air Quality Control's programs with emphasis on compliance issues.

1. Through self-study and discussions with supervisor and staff, gain a working knowledge of Air Pollution Control Act, Rules and Regulations, State and Federal Compliance procedures, and reference material available in the Division.

2. Become familiar with proper inspection techniques and documentation methods by reviewing regional inspection reports.

3. Become familiar with the compliance history and certifiction programs by reviewing the computer databases and applicant documentation.

4. Begin writing simple reports and memoranda and answer Bureau correspondence under close supervision to understand proper office procedures and formats.

5. Attend Division staff meetings to become familiar with the operations of other sections.

6. Attend meeting of the field operations chiefs to become familiar with compliance policies and issues.

7. Gain an understanding of the complexity of the field operations by spending time conducting inspections and attending enforcement meetings with industry. This will involve a temporary assignment to a field office.

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Level II:	Yes	EPA	Classroom

Level II: Basic Source Inspection Techniques Visible Emission Enforcement Training Evaluation of Stationary Source Emission Capture, Transport & Testing Systems Continuous Emissions Monitoring Systems VOC Sampling & Analysis	Yes	EPA	Classroom
Level III: Combustion Source Inspection Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop General VOC Source Regulation & Inspection VOC Fugitive Emissions	Yes	EPA	Classroom
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
Writing Workshops Courses to improve writing skills	Yes	OPM	Classroom/ Hands On
Public speaking Courses to improve public speaking skills	No		
EPA Seminars and Workshops Seminars to explain new EPA programs	Yes	EPA	Classroom
IN-SERVICE TRAINING:			
DEP Orientation	Yes	DEP	Classroom
DEP Academy: Lab Orientation First Aid/CPR Right-to-Know Ethics Lyme Disease Prevention Slip/Trip/Fall Hazard Avoidance AIDS Conflict Communications Industry Perspective of DEP Media Relations Risk Communications/Conflict Legal: Components of the Regulatory Complaint Process Enforcement Tools Negotiation Skills Wetlands Erosion/Sediment Control Intro to Computer Sys Available at DEP	Yes	DEP	Classroom/ Hands On

Defensive Driving
Confined Space
Disaster Awareness
Orienteering
Inspectional Procedures
Mock Inspections
Legal: Evidence Handling
Interviewing Techniques/Exercise
Truck/Vehicles/Containers
Access and Entry Issues
Multimedia Inspections - Permit Discussion

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL CHEMIST

DIVISION OF COMPLIANCE & ENFORCEMENT:
COMPLIANCE CERTIFICATION SECTION:

ON-THE JOB TRAINING:

The general purpose of this training is to understnd the Bureau of Air Quality Control's programs with emphasis on compliance issues.

1. Through self-study and discussions with supervisor and staff, gain a working knowledge of Air Pollution Control Act, Rules and Regulations, State and Federal Compliance procedures, and reference material available in the Division.

2. Become familiar with proper inspection techniques and documentation methods by reviewing regional inspection reports.

3. Become familiar with the compliance history and certifiction programs by reviewing the computer databases and applicant documentation.

4. Begin writing simple reports and memoranda and answer Bureau correspondence under close supervision to understand proper office procedures and formats.

5. Attend Division staff meetings to become familiar with the operations of other sections.

6. Attend meetings of the field operations chiefs to become familiar with compliance policies and issues.

7. Gain an understanding of the complexity of the field operations by spending time conducting inspections and attending enforcement metings with industry. This will involve a temporary assignment to a field office.

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Level II: Basic Source Inspection Techniques	Yes	EPA	Classroom

Visible Emission Enforcement Training			
Evaluation of Stationary Source Emission Capture, Transport & Testing Systems			
Continuous Emissions Monitoring Systems			
VOC Sampling & Analysis			
Level III:	Yes	EPA	Classroom
Combustion Source Inspection			
Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop			
General VOC Source Regulation & Inspection			
VOC Fugitive Emissions			
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
Writing Workshops	Yes	OPM	Classroom/
Courses to improve writing skills			Hands On
Public Speaking	No		
Courses to improve public speaking skills			
EPA Seminars and Workshops	Yes	EPA	Classroom
Seminars to explain new EPA programs			
IN-SERVICE TRAINING:			
DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/
Lab Orientation			Hands-On
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DEP			
Defensive Driving			
Confined Space			

Disaster Awareness
Orienteering
Optional Break-Out Sessions

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR POLLUTION CONTROL ENGINEERS I

DIVISION OF COMPLIANCE & ENFORCEMENT,
CONTINUOUS COMPLIANCE SECTION:

ON-THE-JOB TRAINING:

The Air Pollution Control Engineer I will have routine sessions with the Section Chief of from one to two hours each, one to three times per week, for from one to three months. These sessions will acquaint the trainee with specifics and details of his/her job.

The Air Pollution Control Engineer I will participate in routine Section staff meetings of from one to two hours each week. These meetings acquaint engineer with: what everyone in the Section is currently doing, Section issues and problems, and functions of the Section. These meetings develop communications skills, group problem solving skills, and understanding of coworkers and Section cohesion.

The Air Pollution Control Engineer I will attend Division staff meetings to particulate in the dissemination of information and to become familiar with the operations of other sections.

The Air Pollution Control Engineer I will be assigned to a regional office for approximatelyfour weeks to participate in inspectins, field sampling, complaint investigations, and other experiences to acquaint him/her to field activities.

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Technical Writing	Yes	OPM	Classroom
Visible Emissions Training/Certification	Yes	ETA	Classroom/ Hands On
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On

Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On

- Lab Orientation
- First Aid/CPR
- Right-to-Know
- Ethics
- Lyme Disease Prevention
- Slip/Trip/Fall Hazard Avoidance
- AIDS
- Conflict Communications
- Industry Perspective of DEP
- Media Relations
- Risk Communications/Conflict
- Legal: Components of the Regulatory Complaint Process
  - Enforcement Tools
  - Negotiation Skills
- Wetlands
- Erosion/Sediment Control
- Intro to Computer Sys Available at DEP
- Defensive Driving
- Confined Space
- Disaster Awareness
- Orienteering
- Optional Break-Out Sessions

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
EPA Self-Study Courses:	Yes	EPA	

- Transmissometer Systems (SI:476A)
- AP Control Systems for Selected Industries (SI:431)
- Continuous Emission Monitoring Systems (SI:476B)
- Intro. to Baseline Source Inspection Techniques (SI:445)

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL TRAINEE

DIVISION OF COMPLIANCE & ENFORCEMENT,
CONTINUOUS COMPLIANCE SECTION:

ON-THE-JOB TRAINING:

The Environmental Trainee will have routine sessions with the Section Chief of from one to two hours each, one to three times per week, for from one to three months. These sessions will acquaint the trainee with specifics and details of his/her job.

The Environmental Trainee will participate in routine Section staff meetings of from one to two hours each week. These meetings acquaint engineer with: what everyone in the Section is currently doing, Section issues and problems, and functions of the Section. These meetings develop communications skills, group problem solving skills, and understanding of coworkers and Section cohesion.

The Environmental Trainee will attend Division staff meetings to particulate in the dissemination of information and to become familiar with the operations of other sections.

The Environmental Trainee will be assigned to a regional office for approximatelyfour weeks to participate in inspectins, field sampling, complaint investigations, and other experiences to acquaint him/her to field activities.

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Technical Writing	Yes	OPM	Classroom
Visible Emissions Training/Certification	Yes	ETA	Classroom/ Hands-On
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands-On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DEP			
Defensive Driving			
Confined Space			
Disaster Awareness			
Orienteering			
Inspectional Procedures			
Mock Inspections			
Legal: Evidence Handling			
Interviewing Techniques/Exercise			
Truck/Vehicles/Containers			
Access and Entry Issues			
Multimedia Inspections - Permit Discussion			

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
EPA Self-Study Courses:	Yes	EPA	
Transmissometer Systems (SI:476A)			
AP Control Systems for Selected Industries (SI:431)			
Continuous Emission Monitoring Systems (SI:476B)			
Intro. to Baseline Source Inspection Techniques (SI:445)			
Air Pollution Control Orientation (SI:422)			

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL TRAINEE

DIVISION OF COMPLIANCE & ENFORCEMENT,
ABATEMENT MONITORING SECTION:

ON-THE-JOB TRAINING:

The general purpose of this training is to acquire a general background in air pollution control and some specific experience with one or two long term projects to acquire experience in dealing with coworkers and a basic understanding of coordinating such projects.

1. Specific projects assigned will be discussed in detail to clarifythe outcome expected. Procedures to be used will be discussed along with formats to be used. Daily discussion with the supervisor or lead worker will be used to identify and clarify work progress. Written outputs will be reviewed in draft form to mold into standard Bureau formats.

2. Review and become familiar with DEP's Correspondence and Administrative Procedures Handbook.

3. Attend Division staff meetings to participate in the dissemination of information and to become familiar with the operations of other sections.

4. Gain an understanding of the complexity of the field operations through a temporary four week assignment to a District office of the Southcentral Region. The work will include the inspection of facilities which have sources or emissions of the type being considered in the regular work assigned in the long term project(s) discussed above.

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Principles & Practice of Air Pollution Control Three day course given as part of EPA Level I training	Yes	EPA	Classroom
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands-On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DEP			
Defensive Driving			
Confined Space			
Disaster Awareness			
Orienteering			
Inspectional Procedures			
Mock Inspections			
Legal: Evidence Handling			
Interviewing Techniques/Exercise			
Truck/Vehicles/Containers			
Access and Entry Issues			
Multimedia Inspections - Permit Discussion			
EPA Self-Study Courses:	Yes	EPA	
SI 422 - Air Pollution Control Orientation			

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR POLLUTION CONTROL ENGINEERS I

DIVISION OF PERMITS,
NEW SOURCE REVIEW SECTION:

ON-THE-JOB TRAINING:

The general purpose of this training is to understand the Bureau of Air Quality Control's permitting program through both the plan approval and operating permit process; and then progress to conducting oversight and assisting in the provision of guidance to the regional permitting program.

1. Through self-study and discussions with supervisor and staff, gain a working knowledge of:

   a. Air Pollution Control Act
   b. Rules and Regulations
   c. Permit Manual
   d. Federal regulations including PSD, NSPS, and NESHAPS
   e. Textbooks and other background materials available in Division reference shelves and files

2. Become familiar with plan approval review activities by reviewing documentation of regional activities to understand conformity with applicable regulations and policies. The documents reviewed include the following:

   a. Plan approval applications and plan approval forms
   b. Plan approval review summaries

3. Become familiar with proper inspection techniques and documentation methods by reviewing regional inspection reports.

4. Become familiar with the permit database through hands-on use of the system to conduct information searches and to produce reports used in the Division's activities. Similarly, become familiar with EPA Bulletin Boards and Clearinghouses.

5. Begin writing simple reports and memos, and answer Bureau correspondence under close supervision to understand proper office procedures and formats.

6. Become familiar with the role of the source tests and continuous emission monitors (CEMs) in the permitting process through the review of regulatory and permitting requirements with Division personnel.

7. As an observer, attend meetings with control equipment vendors and potential applicants. Attend permit staff meetings.

8. As arrangements can be made, spend time with regional and other personnel conducting inspections, witnessing source tests, auditing the operating of CEMs, and other permit review activities.

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I:	Yes	EPA	Classroom
Fundamentals of Environ. Comp. Inspections			
Basic Health & Safety for Field Activities			
Respiratory Protection & Use of Safety Equip.			
Principles & Practice of Air Poll. Control			
Level III:	Yes	EPA	Classroom
Combustion Source Inspection			
Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop			
General VOC Source Regulation & Inspection			
VOC Fugitive Emissions			
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
Effective Permit Writing (#454)	Yes	EPA	Classroom
Sources & Control of VOC	Yes	EPA	Classroom

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			

Wetlands
Erosion/Sediment Control
Intro to Computer Sys Available at DEP
Defensive Driving
Confined Space
Disaster Awareness
Orienteering
Philosophy of Permitting
Types of Permits
Permit Process Overview
Coordinated Permits
Reviewing of Applications
Compliance History
Financial Responsibility
Public Access to Files
Public Meetings
Legal Requirements
Writing a Permit
Permit Action
Appeals
Understanding Roles/Relationships
Panel Discussion - Inspectors from Operations

EPA Self Study Courses:	Yes	EPA	
Overview of PSD Regulations (#453)			
Air Pollution Control Systems for Selected Industries			

IN-HOUSE TRAINING:

NO_X RACT	Yes	AQ Staff	Classroom
Title V Permitting	Yes	AQ Staff	Classroom
ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR POLLUTION CONTROL ENGINEERS I

DIVISION OF PERMITS,
TECHNICAL SUPPORT SECTION:

ON-THE-JOB TRAINING:

The general purpose of this training is to understand the Bureau of Air Quality Control's permitting program through both the plan approval and operating permit process; and then progress to conducting oversight and assisting in the provision of guidance to the regional permitting program.

1. Through self-study and discussions with supervisor and staff, gain a working knowledge of:

   a. Air Pollution Control Act
   b. Rules and Regulations
   c. Permit Manual
   d. Federal regulations including PSD, NSPS, and NESHAPS
   e. Textbooks and other background materials available in Division reference shelves and files

2. Become familiar with plan approval review activities by reviewing documentation of regional activities to understand conformity with applicable regulations and policies. The documents reviewed include the following:

   a. Plan approval applications and plan approval forms
   b. Plan approval review summaries

3. Become familiar with proper inspection techniques and doucmentation methods by reviewing regional inspection reports.

4. Become familiar with the permit database through hands-on use of the system to conduct information searches and to produce reports used in the Division's activities. Similarly, become familiar with EPA Bulletin Boards and Clearinghouses.

5. Begin writing simple reports and memos, and answer Bureau correspondence under close supervision to understand proper office procedures and formats.

6. Become familiar with the role of the source tests and continuous emission monitors (CEMs) in the permitting process through the review of regulatory and permitting requirements with Division personnel.

7. As an observer, attend meetings with control equipment vendors and potential applicants. Attend permit staff meetings.

8. As arrangements can be made, spend time with regional and other personnel conducting inspections, witnessing source tests, auditing the operating of CEMs, and other permit review activities.

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I:	Yes	EPA	Classroom
Fundamentals of Environ. Comp. Inspections			
Basic Health & Safety for Field Activities			
Respiratory Protection & Use of Safety Equip.			
Principles & Practice of Air Poll. Control			
Level III:	Yes	EPA	Classroom
Combustion Source Inspection			
Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop			
General VOC Source Regulation & Inspection			
VOC Fugitive Emissions			
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
Effective Permit Writing (#454)	Yes	EPA	Classroom
Sources & Control of VOC	Yes	EPA	Classroom

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			

Wetlands
Erosion/Sediment Control
Intro to Computer Sys Available at DEP
Defensive Driving
Confined Space
Disaster Awareness
Orienteering
Philosophy of Permitting
Types of Permits
Permit Process Overview
Coordinated Permits
Reviewing of Applications
Compliance History
Financial Responsibility
Public Access to Files
Public Meetings
Legal Requirements
Writing a Permit
Permit Action
Appeals
Understanding Roles/Relationships
Panel Discussion - Inspectors from Operations

EPA Self-Study Courses:	Yes	EPA

Overview of PSD Regulations (#453)
Air Pollution Control Systems for Selected Industries (#431)
Urban Air Toxics (#404)
Hazardous Waste Incinerator (#502)

IN-HOUSE TRAINING:

NO_x RACT	Yes	AQ Staff	Classroom
Title V Permitting	Yes	AQ Staff	Classroom
ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL TRAINEES

DIVISION OF AIR QUALITY MONITORING,
TOXICS MONITORING SECTION:

ON-THE-JOB TRAINING:

Objective	Method
Principles and operating procedures of air toxics monitoring equipment	Manuals and Hands-On Provided by senior staff
Introduction to the goals of air toxics monitoring	Manuals and Hands-On Provided by senior staff
Introduction to the "Compendium of Methods for Toxic Organic Compounds"	Manuals and Hands-On Provided by senior staff

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Level II: Basic Source Inspection Techniques Visible Emission Enforcement Training Evaluation of Stationary Source Emission Capture, Transport & Testing Systems Continuous Emissions Monitoring Systems VOC Sampling & Analysis	Yes	EPA	Classroom
Level III: Combustion Source Inspection Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop General VOC Source Regulation & Inspection VOC Fugitive Emissions	Yes	EPA	Classroom
Introduction to Air Toxics	Yes	EPA	Classroom

Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
IN-SERVICE TRAINING:			
DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DEP			
Defensive Driving			
Confined Space			
Disaster Awareness			
Orienteering			
Optional Break-Out Sessions			
IN-HOUSE TRAINING:			
ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
Right to Know	Yes	AQ Staff	Classroom

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL CHEMISTS I

DIVISION OF AIR QUALITY MONITORING,
TOXICS MONITORING SECTION:

ON-THE-JOB TRAINING:

Objectives	Method
Principles and operating procedures of air toxics monitoring equipment	Manuals and Hands-On Provided by senior staff
Introduction to the goals of air toxics monitoring	Manuals and Hands-On Provided by senior staff
Introduction to the "Compendium of Methods for Toxic Organic Compounds"	Manuals and Hands-On Provided by senior staff

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Level II: Basic Source Inspection Techniques Visible Emission Enforcement Training Evaluation of Stationary Source Emission Capture, Transport & Testing Systems Continuous Emissions Monitoring Systems VOC Sampling & Analysis	Yes	EPA	Classroom
Level III: Combustion Source Inspection Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop General VOC Source Regulation & Inspection VOC Fugitive Emissions	Yes	EPA	Classroom
Introduction to Air Toxics	Yes	EPA	Classroom

Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
IN-SERVICE TRAINING:			
DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands-On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DEP			
Defensive Driving			
Confined Space			
Disaster Awareness			
Orienteering			
Optional Break-Out Sessions			
IN-HOUSE TRAINING:			
ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
Right-To-Know	Yes	AQ Staff	Classroom

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR POLLUTION CONTROL ENGINEERS I

DIVISION OF AIR QUALITY MONITORING,
CENTRAL OPERATIONS SECTION:

ON-THE-JOB TRAINING:

Objectives	Method
Principles and operating procedures of ambient air monitoring equipment	Manuals and Hands-On Provided by senior staff
COPAMS computer training	Manuals and Hands-On Provided by senior staff
Quality assurance principles and practices	Manuals and Hands-On Provided by senior staff
Introduction to environmental statistics	Hands-On provided by senior staff
NAQSS and Reference Methods	Manuals

OUT-SERVICE TRAINING:

Level I:	Yes	EPA	Classroom
Fundamentals of Environ. Comp. Inspections			
Basic Health & Safety for Field Activities			
Respiratory Protection & Use of Safety Equip.			
Principles & Practice of Air Poll. Control			
Quality Assurance fo AP Measurement Systems	Yes	EPA	Classroom
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/
Lab Orientation			Hands On
First Aid/CPR			
Right-to-Know			
Ethics			

Lyme Disease Prevention
Slip/Trip/Fall Hazard Avoidance
AIDS
Conflict Communications
Industry Perspective of DEP
Media Relations
Risk Communications/Conflict
Legal: Components of the Regulatory Complaint Process
Enforcement Tools
Negotiation Skills
Wetlands
Erosion/Sediment Control
Intro to Computer Sys Available at DEP
Defensive Driving
Confined Space
Disaster Awareness
Orienteering
Optional Break-Out Sessions

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
Right to Know	Yes	AQ Staff	Classroom

EPA Telecourses:

Introduction to Ambient Air Monitoring	Yes	EPA

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR MONITORING EQUIPMENT SPECIALISTS

DIVISION OF AIR QUALITY MONITORING,
CENTRAL OPERATIONS SECTION:

ON-THE-JOB TRAINING:

Objectives	Method
Principles and operating procedures of ambient air monitoring equipment	Manuals and Hands-On Provided by senior staff
COPAMS computer training	Manuals and Hands-On Provided by senior staff
Quality assurance principles and practices	Manuals and Hands-On Provided by senior staff

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Computer Courses	Yes	Contractor	Hands On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy: Lab Orientation First Aid/CPR Right-to-Know Ethics Lyme Disease Prevention	Yes	DEP	Classroom

Slip/Trip/Fall Hazard Avoidance
AIDS
Conflict Communications
Industry Perspective of DEP
Media Relations
Risk Communications/Conflict
Legal: Components of the Regulatory Complaint Process
Enforcement Tools
Negotiation Skills
Wetlands
Erosion/Sediment Control
Intro to Computer Sys Available at DEP
Defensive Driving
Confined Space
Disaster Awareness
Orienteering
Optional Break-Out Sessions

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
Right to Know	Yes	AQ Staff	Classroom

EPA Telecourses:

Introduction to Ambient Air Monitoring	Yes	EPA

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR MONITORING EQUIPMENT SPECIALISTS

DIVISION OF AIR QUALITY MONITORING,
FIELD OPERATIONS & MAINTENANCE SECTION:

ON-THE-JOB TRAINING:

Objectives	Method
Principles and operating procedures of ambient air monitoring equipment	Manuals and Hands-On Provided by senior staff
COPAMS computer training	Manuals and Hands-On Provided by senior staff
Quality assurance principles and practices	Manuals and Hands-On Provided by senior staff

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I:	Yes	EPA	Classroom
Fundamentals of Environ. Comp. Inspections			
Basic Health & Safety for Field Activities			
Respiratory Protection & Use of Safety Equip.			
Principles & Practice of Air Poll. Control			
Computer Course:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/
Lab Orientation			Hands On
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			

Conflict Communications
Industry Perspective of DEP
Media Relations
Risk Communications/Conflict
Legal: Components of the Regulatory
Complaint Process
Enforcement Tools
Negotiation Skills
Wetlands
Erosion/Sediment Control
Intro to Computer Sys Available at DEP
Defensive Driving
Confined Space
Disaster Awareness
Orienteering
Optional Break-Out Sessions

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
Right to Know	Yes	AQ Staff	Classroom

EPA Telecourses:

Introduction to Ambient Air Monitoring	Yes	EPA

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR POLLUTION CONTROL ENGINEERS I

DIVISION OF AIR QUALITY MONITORING,
FIELD OPERATIONS & MAINTENANCE SECTION:

ON-THE-JOB TRAINING:

Objectives	Method
Principles and operating procedures of ambient air monitoring equipment	Manuals and Hands-On Provided by senior staff
COPAMS computer training	Manuals and Hands-On Provided by senior staff
Quality assurance principles and practices	Manuals and Hands-On Provided by senior staff
Introduction to environmental statistics	Hands-On provided by senior staff
NAQSS and Reference Methods	Manuals

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Quality Assurance for AP Measurement System	Yes	EPA	Classroom
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/

Lab Orientation — Hands On
First Aid/CPR
Right-to-Know
Ethics
Lyme Disease Prevention
Slip/Trip/Fall Hazard Avoidance
AIDS
Conflict Communications
Industry Perspective of DEP
Media Relations
Risk Communications/Conflict
Legal: Components of the Regulatory Complaint Process
Enforcement Tools
Negotiation Skills
Wetlands
Erosion/Sediment Control
Intro to Computer Sys Available at DEP
Defensive Driving
Confined Space
Disaster Awareness
Orienteering
Optional Break-Out Sessions

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On
Right to Know	Yes	AQ Staff	Classroom

EPA Telecourses:

Introduction to Ambient Air Monitoring	Yes	EPA

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR POLLUTION CONTROL ENGINEER I

DIVISION OF SOURCE TESTING & MONITORING,
SOURCE TESTING SECTION:

ON-THE-JOB TRAINING:

The objective of this segment is to provide the basic knowledge and skills necessary for entry level employees to perform those duties and responsibilities fundamental to the Division of Source Testing & Monitoring and to provide a solid foundation upon which these employees can build a professional career.

These basic skills are generally taught through informal one-on-one meetings with senior staff and through discussions at staff meetings:

Safety
Equipment Handling
Calibration Techniques
Driving (Stack Test Trucks)
Filing System
State/Federal Regulations
Equipment Maintenance/Repair
Stack Test Observations
Stack Test Protocols/Reviews
Office Procedures

OUT-SERVICE TRAINING:

This segment provides the formal training necessary to perform the technical aspects of the position. This portion is more job specific and is assigned in the area of the employee's responsibility. This training is necessary to provide the knowledge required in the areas of safety as applied to the specific job duties, the various pollutants and the operations of the various control equipment used and the theory and practices of actual stack sampling.

Several of the EPA courses listed below will be taken via the Harrisburg downlinking site as scheduled. Additional courses not listed below may also be assigned as scheduling permits.

	Currently Provided	Provided By	Method
Level I:	Yes	EPA	Classroom
Fundamentals of Environ. Comp. Inspections			
Basic Health & Safety for Field Activities			
Respiratory Protection & Use of Safety Equip.			
Principles & Practice of Air Poll. Control			

Level II:	Yes	EPA	Classroom
Basic Source Inspection Techniques			
Visible Emission Enforcement Training			
Evaluation of Stationary Source Emission Capture, Transport & Testing Systems			
Continuous Emissions Monitoring Systems			
VOC Sampling & Analysis			
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
Introduction to Air Toxics (#400)	Yes	EPA	Classroom
Source Sampling for Pollutants (#450)	Yes	EPA	Classroom
Inspection Procedures & Safety (#446)	Yes	EPA	Classroom
Quality Assurance for Air Pollution Measurements System (#470)	Yes	EPA	Classroom
Combustion Evaluation (#427)	Yes	EPA	Classroom
IN-SERVICE TRAINING:			
DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DEP			
Defensive Driving			
Confined Space			
Disaster Awareness			
Orienteering			
Optional Break-Out Sessions			

IN-HOUSE TRAINING:

NOx RACT	Yes	AQ Staff	Classroom
Title V Permitting	Yes	AQ Staff	Classroom
ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL TRAINEES

DIVISION OF SOURCE TESTING & MONITORING,
SOURCE TESTING SECTION:

ON-THE-JOB TRAINING:

The objective of this sigment is to provide the bais knowledge and skills necessary for entry level employees to perform those duties and responsibilities fundamental to the Division of Source Testing & Monitoring and to provide a solid foundation upon which these employees can build a professional career.

These basic skills are generally taught through informal one-on-one meetings with senior staff and through discussions at staff meetings:

Safety
Equipment Handling
Calibration Techniques
Driving (Stack Test Trucks)
Filing System
State/Federal Regulations
Equipment Maintenance/Repair
Stack Test Observations
Stack Test Protocols/Reviews
Office Procedures

OUT-SERVICE TRAINING:

This segment provides the formal training necessary to perform the technical aspects of the position. This portion is more job specific and is assigned in the area of the employee's responsibility. This training is necessary to provide the knowledge required in the areas of safety as applied to the specific job duties, the various pollutants and the operations of the various control equipment used and the theory and practices of actual stack sampling.

Several of the EPA courses listed below will be taken via the Harrisburg downlinking site as scheduled. Additional courses not listed below may also be assigned as scheduling permits.

	Currently Provided	Provided By	Method
Level I:	Yes	EPA	Classroom
Fundamentals of Environ. Comp. Inspections			

Basic Health & Safety for Field Activities			
Respiratory Protection & Use of Safety Equip.			
Principles & Practice of Air Poll. Control			
Level II:	Yes	EPA	Classroom
Basic Source Inspection Techniques			
Visible Emission Enforcement Training			
Evaluation of Stationary Source Emission Capture, Transport & Testing Systems			
Continuous Emissions Monitoring Systems			
VOC Sampling & Analysis			
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On
Introduction to Air Toxics (#400)	Yes	EPA	Classroom
Source Sampling for Pollutants (#450)	Yes	EPA	Classroom
Inspection Procedures & Safety (#446)	Yes	EPA	Classroom
Quality Assurance for Air Pollution Measurements System (#470)	Yes	EPA	Classroom
Combustion Evaluation (#427)	Yes	EPA	Classroom
IN-SERVICE TRAINING:			
DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DEP			
Defensive Driving			
Confined Space			

Disaster Awareness
Orienteering
Optional Break-Out Sessions

IN-HOUSE TRAINING:

NOx RACT	Yes	AQ Staff	Classroom
Title V Permitting	Yes	AQ Staff	Classroom
ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Classroom
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR POLLUTION CONTROL ENGINEER I

DIVISION OF SOURCE TESTING & MONITORING,
CONTINUOUS EMISSION MONITORING SECTION:

ON-THE-JOB TRAINING:

The purpose of on-the-job training is to provide the employee with an understanding of the procedures used to conduct the routine activities of the Continuous Emission Monitoring Section. Training is accomplished by direct supervision of the employee as he conducts each activity. The areas of on-the-job training include:

Proposal Review:
- Phase I monitoring system proposals
- Phase II test protocols
- Level IV test protocols

Test Observation:
- Phase II performance specifiction testing
- Level IV system performance audit testing

Report Review:
- Phase III performance specifiction test report
- Level IV system performance audit report

CEMS Inspections:
- Level II system audit inspection

Audit Testing:
- Level III analyzer audit testing
- Level IV system performance audit testing

Data Entry:
- Hard copy CEMS quarterly reports
- Floppy disk CEMS quarterly reports

Safety
Equipment Handling
Calibration Techniques
Driving (Stack Test Trucks)
Filing System
State/Federal Regulations
Equipment Maintenance/Repair
Stack Test Observations
Stack Test Protocols/Reviews
Office Procedures

OUT-SERVICE TRAINING:

This segment provides the formal training necessary to perform the technical aspects of the position. This portion is more job specific and is assigned in the area of the employee's responsibility. This training is necessary to provide the knowledge required in the areas of safety as applied to the specific job duties, the various pollutants and the operations of the various control equipment used and the theory and practices of actual stack sampling.

Several of the EPA courses listed below will be taken via the Harrisburg downlinking site as scheduled. Additional courses not listed below may also be assigned as scheduling permits.

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Level II: Basic Source Inspection Techniques Visible Emission Enforcement Training Evaluation of Stationary Source Emission Capture, Transport & Testing Systems Continuous Emissions Monitoring Systems VOC Sampling & Analysis	Yes	EPA	Classroom
Level III: Combustion Source Inspection Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop General VOC Source Regulation & Inspection VOC Fugitive Emissions	Yes	EPA	Classroom
Continuous Emission Monitoring (#474)	Yes	EPA	Classroom/ Hands On
Source Sampling for Pollutants (#450)	Yes	EPA	Classroom
Control of Particulate Emissions (#413)	Yes	EPA	Classroom
Inspection Procedures & Safety (#446)	Yes	EPA	Classroom
Combustion Evaluation (#427)	Yes	EPA	Classroom/ Hands On
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On

Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On

- Lab Orientation
- First Aid/CPR
- Right-to-Know
- Ethics
- Lyme Disease Prevention
- Slip/Trip/Fall Hazard Avoidance
- AIDS
- Conflict Communications
- Industry Perspective of DEP
- Media Relations
- Risk Communications/Conflict
- Legal: Components of the Regulatory Complaint Process
  - Enforcement Tools
  - Negotiation Skills
- Wetlands
- Erosion/Sediment Control
- Intro to Computer Sys Available at DEP
- Defensive Driving
- Confined Space
- Disaster Awareness
- Orienteering
- Optional Break-Out Sessions

EPA Self-Study Courses:	Yes	EPA	

- Air Pollution Orientation (SI:422)
- Inspection Safety (SI:446)
- CEM Operation & Maintenance (SI:476A & SI:476B)

IN-HOUSE TRAINING:

NOx RACT	Yes	AQ Staff	Classroom
Title V Permitting	Yes	AQ Staff	Classroom
ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL TRAINEES

DIVISION OF SOURCE TESTING & MONITORING,
CONTINUOUS EMISSION MONITORING SECTION:

ON-THE-JOB TRAINING:

The purpose of on-the-job training is to provide the employee with an understanding of the procedures used to conduct the routine activities of the Continuous Emission Monitoring Section. Training is accomplished by direct supervision of the employee as he conducts each activity. The areas of on-the-job training include:

Proposal Review:
- Phase I monitoring system proposals
- Phase II test protocols
- Level IV test protocols

Test Observation:
- Phase II performance specifiction testing
- Level IV system performance audit testing

Report Review:
- Phase III performance specifiction test report
- Level IV system performance audit report

CEMS Inspections:
- Level II system audit inspection

Audit Testing:
- Level III analyzer audit testing
- Level IV system performance audit testing

Data Entry:
- Hard copy CEMS quarterly reports
- Floppy disk CEMS quarterly reports

Safety
Equipment Handling
Calibration Techniques
Driving (Stack Test Trucks)
Filing System
State/Federal Regulations
Equipment Maintenance/Repair
Stack Test Observations
Stack Test Protocols/Reviews
Office Procedures

OUT-SERVICE TRAINING:

This segment provides the formal training necessary to perform the technical aspects of the position. This portion is more job specific and is assigned in the area of the employee's responsibility. This training is necessary to provide the knowledge required in the areas of safety as applied to the specific job duties, the various pollutants and the operations of the various control equipment used and the theory and practices of actual stack sampling.

Several of the EPA courses listed below will be taken via the Harrisburg downlinking site as scheduled. Additional courses not listed below may also be assigned as scheduling permits.

	Currently Provided	Provided By	Method
Level I: Fundamentals of Environ. Comp. Inspections Basic Health & Safety for Field Activities Respiratory Protection & Use of Safety Equip. Principles & Practice of Air Poll. Control	Yes	EPA	Classroom
Level II: Basic Source Inspection Techniques Visible Emission Enforcement Training Evaluation of Stationary Source Emission Capture, Transport & Testing Systems Continuous Emissions Monitoring Systems VOC Sampling & Analysis	Yes	EPA	Classroom
Level III: Combustion Source Inspection Asbestos NESHAP Demolition & Renovation Inspection Procedures Workshop General VOC Source Regulation & Inspection VOC Fugitive Emissions	Yes	EPA	Classroom
Continuous Emission Monitoring (#474)	Yes	EPA	Classroom
Source Sampling for Pollutants (#450)	Yes	EPA	Classroom
Control of Particulate Emissions (#413)	Yes	EPA	Classroom
Inspection Procedures & Safety (#446)	Yes	EPA	Classroom/ Hands On
Combustion Evaluation (#427)	Yes	EPA	Classroom
Computer Courses: Excel	Yes	Sunrise	Hands-On

Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DEP			
Defensive Driving			
Confined Space			
Disaster Awareness			
Orienteering			
Optional Break-Out Sessions			
EPA Self-Study Courses:	Yes	EPA	
Air Pollution Orientation (SI:422)			
Inspection Safety (SI:446)			
CEM Operation & Maintenance (SI:476A & SI:476B)			

IN-HOUSE TRAINING:

NOx RACT	Yes	AQ Staff	Classroom
Title V Permitting	Yes	AQ Staff	Classroom
ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
ENVIRONMENTAL TRAINEES

ASSISTANT DIRECTOR'S OFFICE,
INFORMATION MANAGEMENT & ANALYSIS SECTION:

ON-THE-JOB TRAINING:

Gain a working knowledge of the following through self-study and through discussions with supervisor and with staff:

1. Become familiar with the enabling legislation of air pollution control including the Pennsylvania Air Pollution Control Act and the federal Clean Air Act.

2. Become familiar with the Rules and Regulations of air pollution control including 25 Pa. Code, primarily Chapters 121 - 143 and the relevant subparts of 40 CFR.

3. Become familiar with the repositories for air data including our Air Information Management System (AIMS) and EPA/s Aerometric Information Retrieval System (AIRS).

4. Become familiar with our handbooks and background documents including AP-42 and the AIMS Strategy and Analysis reports.

5. Become familiar with the administrative workings of the program and both its usefulness including time sheets, ordering supplies, travel rules, clerical support, answering/using the telephone, etc.

6. Become familiar with the functional structure of the air program and of the Department.

OUT-SERVICE TRAINING:

Level I:	Yes	EPA	Classroom
Fundamentals of Environ. Comp. Inspections			
Basic Health & Safety for Field Activities			
Respiratory Protection & Use of Safety Equip.			
Principles & Practice of Air Poll. Control			
Computer Courses:			
Excel	Yes	Sunrise	Hands-On

Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DEP			
Defensive Driving			
Confined Space			
Disaster Awareness			
Orienteering			
Optional Break-Out Sessions			

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On

CENTRAL OFFICE

GENERIC TRAINING PLAN FOR
AIR POLLUTION CONTROL ENGINEERS I

ASSISTANT DIRECTOR'S OFFICE,
INFORMATION MANAGEMENT & ANALYSIS SECTION:

ON-THE-JOB TRAINING:

Gain a working knowledge of the following through self-study and through discussions with supervisor and with staff:

1. Become familiar with the enabling legislation of air pollution control including the Pennsylvania Air Pollution Control Act and the federal Clean Air Act.

2. Become familiar with the Rules and Regulations of air pollution control including 25 Pa. Code, Article III and the relevant subparts of 40 CFR.

3. Become familiar with the repositories for air data including our Air Information Management System (AIMS) and EPA's Aerometric Information Retrieval System (AIRS).

4. Become familiar with our handbooks and background documents including AP-42 and the AIMS Strategy and Analysis reports.

5. Become familiar with the administrative workings of the program and both its usefulness including time sheets, ordering supplies, travel rules, clerical support, working the telephone, etc.

6. Become familiar with the functional structure of the air program and of the Department.

OUT-SERVICE TRAINING:

	Currently Provided	Provided By	Method
Level I:	Yes	EPA	Classroom
Fundamentals of Environ. Comp. Inspections			
Basic Health & Safety for Field Activities			
Respiratory Protection & Use of Safety Equip.			
Principles & Practice of Air Poll. Control			
Computer Courses:			
Excel	Yes	Sunrise	Hands-On
Powerpoint	Yes	Sunrise	Hands-On
Access	Yes	Sunrise	Hands-On
Word	Yes	Sunrise	Hands-On

IN-SERVICE TRAINING:

	Currently Provided	Provided By	Method
DEP Orientation	Yes	DEP	Classroom
DEP Academy:	Yes	DEP	Classroom/ Hands On
Lab Orientation			
First Aid/CPR			
Right-to-Know			
Ethics			
Lyme Disease Prevention			
Slip/Trip/Fall Hazard Avoidance			
AIDS			
Conflict Communications			
Industry Perspective of DEP			
Media Relations			
Risk Communications/Conflict			
Legal: Components of the Regulatory Complaint Process			
Enforcement Tools			
Negotiation Skills			
Wetlands			
Erosion/Sediment Control			
Intro to Computer Sys Available at DEP			
Defensive Driving			
Confined Space			
Disaster Awareness			
Orienteering			
Optional Break-Out Sessions			

IN-HOUSE TRAINING:

ALL-IN-1 Electronic Messaging	Yes	AQ Staff	Hands-On
Personal Computer LAN (Pathworks)	Yes	AQ Staff	Hands-On

Telecourses:

Preparation of Emission Inventories	Yes	AQ Staff	Classroom
Introduction to HAPs	Yes	AQ Staff	Classroom
Baseline Source Inspection Techniques	Yes	AQ Staff	Classroom
Inspection Procedures	Yes	AQ Staff	Classroom
Introduction to Permitting	Yes	AQ Staff	Classroom

Hillsborough County (Florida) Training Plan

On-The-Job-Training
Director Air Management Division

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

	EMPLOYEE	SUPERVISOR	DATE
In-House Training			
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
3. Review and be familiar with the following:			
Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management SOPs and MIS	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. Chapter 403, Florida Statutes	____	____	____
F. Summary of the Clean Air Act of 1990 as Amended	____	____	____
G. State Implementation Plan (SIP) for Hillsborough County	____	____	____
H. EPA Air Grant Guidance	____	____	____
I. Annual EPC Report for the most current calendar year	____	____	____
J. Air Division Requirements:			
(1) Field Investigations	____	____	____
(2) Air Compliance (Inspection of Industrial Facilities)	____	____	____
(3) Noise Monitoring	____	____	____
(4) NESHAPS (Asbestos in Particular)	____	____	____
(5) Open Burning	____	____	____
(6) Air Permitting	____	____	____
(7) Enforcement	____	____	____
(8) Air Toxics	____	____	____
(9) Air Monitoring (Location of Air Monitors)	____	____	____
(10) Mobile Source Control Program	____	____	____

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On-The-Job-Training
Director Air Management Division (Continued)

	EMPLOYEE	SUPERVISOR	DATE
K. Administrative Procedures:			
(1) Planning, Programming, and Budget Formulation	_____	_____	_____
(2) Management Information Systems	_____	_____	_____
(3) Position Reclassifications/Upgrades; New Position Justifications	_____	_____	_____
(4) FLSA	_____	_____	_____
(5) Administrative Policy Formulation	_____	_____	_____
(6) Affirmative Action/EEO	_____	_____	_____
(7) Agency Wide Supply Protocols	_____	_____	_____

4. Informal Training

Elective	TRAINING COORDINATOR	DATE
A. Personnel Management	_____	_____
B. Budgeting	_____	_____
C. Statistical Methods	_____	_____
D. Management Information Systems	_____	_____
E. Legal Environment	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

On-The-Job-Training
Executive Secretary

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management Division's SOPs	____	____	____
4. Working knowledge of the following:			
A. Department Administrative Procedures			
(1) Telephone Etiquette	____	____	____
(2) Time Sheets	____	____	____
(3) Logging in Checks	____	____	____
(4) Mail Control	____	____	____
(5) Open Burning Permit Administrative Procedures	____	____	____
(6) Office Supply Inventory	____	____	____
B. Administrative Files			
(1) Filing Plan	____	____	____
(2) Filing System	____	____	____
(3) Air Engineering Files	____	____	____
C. Technical and Training Libraries			
(1) Index Preparation	____	____	____
(2) Filing	____	____	____
D. Use of Office Equipment			
(1) Typewriter	____	____	____
(2) Panasonic Wordprocessor	____	____	____
(3) IBM PC	____	____	____
(4) Copy Machine	____	____	____
(5) FAX Machine	____	____	____

On-The-Job-Training
Executive Secretary (Continued)

	EMPLOYEE	SUPERVISOR	DATE
In-House Training			
E. Correspondence Management			
(1) Document Preparation	_____	_____	_____
(2) Familiarization with Representative Document Formats	_____	_____	_____
(3) Document Filing	_____	_____	_____
5. **Formal Training**			
A. Desirable secretarial courses	_____	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Senior Secretary

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Review and be familiar with the following:			
Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management Division's SOPs	____	____	____
4. Working knowledge of the following:			
A. Department Administrative Procedures			
(1) Telephone Etiquette	____	____	____
(2) Time Sheets	____	____	____
(3) Logging in Checks	____	____	____
(4) Mail Control	____	____	____
B. Administrative Files			
(1) Filing Plan	____	____	____
(2) Filing System	____	____	____
(3) Air Engineering Files	____	____	____
C. Technical and Training Libraries			
(1) Index Preparation	____	____	____
(2) Filing	____	____	____
D. Use of Office Equipment			
(1) Typewriter	____	____	____
(2) Panasonic Wordprocessor	____	____	____
(3) IBM PC	____	____	____
(4) Copy Machine	____	____	____
(5) FAX Machine	____	____	____

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On-The-Job-Training
Senior Secretary (Continued)

	EMPLOYEE	SUPERVISOR	DATE
In-House Training			
E. Correspondence Management			
(1) Document Preparation	_____	_____	_____
(2) Familiarization with Representative Document Formats	_____	_____	_____
(3) Document Filing	_____	_____	_____
Formal Training			
5. A. Desirable secretarial courses	_____	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Enforcement and Operational Support Supervisor

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following:			
A. Agency Policies & Procedures	____	____	____
B. AMD Procedures	____	____	____
C. Specific Operating Agreement	____	____	____
D. 105 Grant Commitments for Enforcement	____	____	____
E. ARMS Manual	____	____	____
F. 40 CFR, Parts 60 and 61	____	____	____
G. CAAA Amendments, 1990, Title VII (Enforcement)	____	____	____
H. Annual EPC Report for the most current calendar year	____	____	____
I. FDEP/Local Operating Agreement	____	____	____
J. FDEP Organizational Charts	____	____	____
K. EPC Data Orientation	____	____	____

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On-The-Job-Training
Enforcement and Operational Support Supervisor (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. SOPs			
(1) Agency Enforcement	____	____	____
(2) AMD Enforcement	____	____	____
B. AMD Penalty Guidelines	____	____	____
C. EPA Guidance Documents	____	____	____
(1) Timely & Appropriate Enforcement	____	____	____
(2) Enforcement Agreement	____	____	____
D. Legislative Acts, Statutes, Rules:			
(1) Chapter 84-446, Laws of Florida	____	____	____
(2) Chapter 403.121 & 403, 182, F.S.	____	____	____
(3) Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
(4) Chapter 62-210 Through 62-297	____	____	____
E. Preparation of Enforcement Documents	____	____	____
F. Exceedances and Air Pollution Episodes	____	____	____
G. IBM PC: Wordperfect, AREV, ARMS	____	____	____
H. New Employee Screening and Selection	____	____	____
6. Field Inspections			
A. 5 Inspections w/Air Engineering (Industrial)	____	____	____
B. 5 Inspections w/Technical Air Ops. (Commerical, Open Burning, Mobile Src., CFC)	____	____	____

7. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
SI:422 Air Pollution Control Orientation	____	____
SI:431 Air Pollution Control Systems for Select Industries	____	____
T 446 Inspection Safety Procedures	____	____
Performance Management for Supervisors (Civil Service)	____	____
Employee Discipline (Human Resources)	____	____
Enf 101 State Enforcement Workshop	____	____

On-The-Job-Training
Enforcement and Operational Support Supervisor (Continued)

Elective	TRAINING COORDINATOR	DATE
CARB's 100 Series	_____	_____
444: Air Pollution Field Enforcement	_____	_____
Legal Environment	_____	_____
Personnel Management	_____	_____
Budgeting	_____	_____

"SI" = Self-Instructional Courses
"T" = Telecourses through Satellite Broadcasting

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

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On-The-Job-Training
Enforcement Specialist

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following:			
A. Agency Policies & Procedures	____	____	____
B. AMD Procedures	____	____	____
C. Specific Operating Agreement	____	____	____
D. 105 Grant Commitments for Enforcement	____	____	____
E. ARMS Manual	____	____	____
F. 40 CFR, Parts 60 and 61	____	____	____
G. CAAA Amendments, 1990, Title VII (Enforcement)	____	____	____
5. Working knowledge of the following:			
A. SOPs			
(1) Agency Enforcement	____	____	____
(2) AMD Enforcement	____	____	____
B. AMD Penalty Guidelines	____	____	____

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On-The-Job-Training
Enforcement Specialist (Continued)

	EMPLOYEE	SUPERVISOR	DATE
C. EPA Guidance Documents			
(1) Timely & Appropriate Enforcement	____	____	____
(2) Enforcement Agreement	____	____	____
D. Legislative Acts, Statutes, Rules:	____	____	____
(1) CH. 84-446, Laws of Florida			
(2) CH. 403.121 & 403, 182, F.S.	____	____	____
(3) CH. 1-1, 1-2, 1-3, 1-4, 1-6, 1-8, and 1-10, Rules of the Commission	____	____	____
(4) CH. 62-210 Through 62-297	____	____	____
	____	____	____
6. Field Inspections			
A. 10 Inspections w/Air Engineering (Industrial)	____	____	____
B. 10 Inspections w/Technical Air Ops. (Commerical, Open Burning, Mobile Src., CFC)	____	____	____
7. Preparation of Enforcement Documents			
A. Notices of Intent	____	____	____
B. Consent Orders	____	____	____
C. Citations	____	____	____
D. Penalty Calculations	____	____	____
	____	____	____
8. Computer Training			
A. WordPerfect	____	____	____
B. AREV	____	____	____
C. ARMS	____	____	____
	____	____	____

On-The-Job-Training
Enforcement Specialist (Continued)

9. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
SI:422 Air Pollution Control Orientation	_____	_____
SI:431 Air Pollution Control Systems for Select Industries	_____	_____
T 446 Inspection Safety Procedures	_____	_____
Enf 101 State Enforcement Workshop	_____	_____

Elective	TRAINING COORDINATOR	DATE
CARB's 100 Series	_____	_____
444: Air Pollution Field Enforcement	_____	_____

"SI" = Self-Instructional Courses
"T" = Telecourses through Satellite Broadcasting

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Operational Support Specialist

NAME: _____ TRAINER: _____

JOB TITLE: _____ SUPERVISOR: _____

DATE INITIATED: _____

In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following:			
Operational/Technical Procedures, Rules or Regulations			
A. Air Division SOPs	____	____	____
B. Agency's Administrative SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of Rules of EPC	____	____	____
E. CAA Admendments 1990, Title I, II, III, V, VI & Parts of VII & VIII	____	____	____
F. FDEP DARM Office Operations	____	____	____
G. Procedures of DRI's	____	____	____
H. Chapter 403, Florida Statutes	____	____	____
I. Annual EPC Report for latest calendar year	____	____	____
J. FDEP/Local Operating Agreement	____	____	____

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On-The-Job-Training
Operational Support Specialist (Continued)

5. Working knowledge of the following:

A. Technical Training Requirements for AMD	____	____	____
B. AMD Administrative Procedures	____	____	____
C. AMD Telephone and PC Network	____	____	____
D. Use, Preparation, and Completion of Enforcement Forms (Complaint Report, Warning Notice, NOI, and Citation)	____	____	____
E. Title V Tracking and Accounting	____	____	____
F. Section 105 Workplan Integration and Tracking	____	____	____
G. EPC Strategic Plan	____	____	____
H. AMD Pollution Prevention Program	____	____	____
I. Comprehension of Inter-Agency Agreements between EPC/DOF/DEP/HCFD	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. Visible Emissions School (Classroom & Smoke Reading)	____	____
B. EPA Courses:		
(1) CARB 100 Level Series	____	____
(2) 446 Inspection Safety Procedures	____	____
(3) 444 Air Pollution Field Enforcement	____	____
Elective		
A. Personnel Management	____	____
B. Budgeting	____	____
C. Management Information Systems	____	____
D. Traffic Demand Management	____	____
E. Courtesy Under Pressure (Irwin VoTech)	____	____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Assistant Director (Air Engineering Department)

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

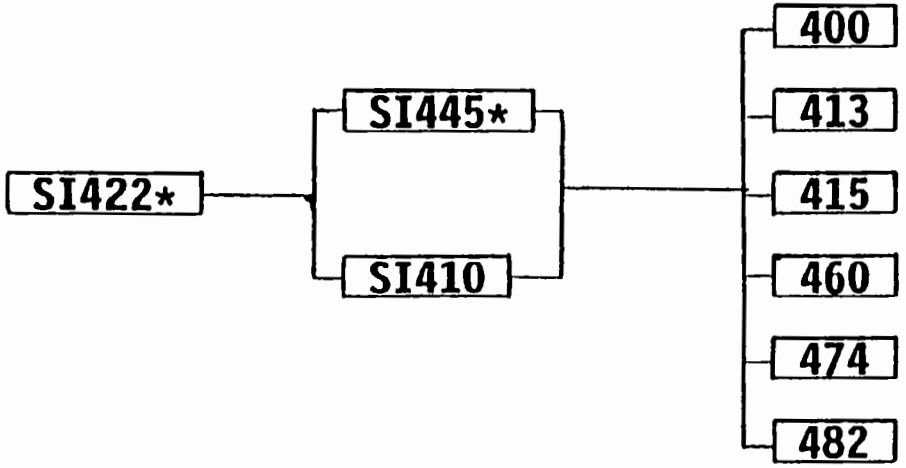
	EMPLOYEE	SUPERVISOR	DATE
In-House Training			
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. FDEP 62-200 Series	____	____	____
F. Chapter 403, Florida Statutes	____	____	____
G. 40 CFR 50-75	____	____	____
H. Annual EPC Report for the most current calendar year	____	____	____
I. FDEP Latest Annual Work Plan	____	____	____
J. FDEP/Local Operating Agreement	____	____	____
K. ARMS Manual	____	____	____
L. PATS Manual	____	____	____
M. DARM's Guidance Manual	____	____	____
N. FDEP Organizational Charts	____	____	____
O. EPC Data Orientation	____	____	____

On-The-Job-Training
Assistant Director (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Exceedances and Air Pollution Episodes (Division)	____	____	____
B. Industrial Source Application Review Procedures (Division)	____	____	____
C. Responding to Complaints and Issuing Warning Notices (Agency)	____	____	____
D. Agency Enforcement (Agency)	____	____	____
E. Enforcement Procedures (Division)	____	____	____
F. New Employee Screening and Selection (Agency)	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. Visible emission school (classroom and smoke reading)	____	____
B. Performance Management for Supervisors (Civil Service)	____	____
C. Employee Discipline (Human Resources)	____	____
D. EPA Courses:		



On-The-Job-Training
Assistant Director (Continued)

		TRAINING COORDINATOR	DATE
(1)	SI:422 Air Pollution Control Orientation	_____	_____
(2)	SI:445 Introduction to Baseline Source Inspection Techniques	_____	_____
(3)	SI:410 Introduction to Dispersion Modeling	_____	_____
(4)	400 Introduction to Hazardous Air Pollutants	_____	_____
(5)	413 Control of Particulate Emissions	_____	_____
(6)	415 Control of Gaseous Emissions	_____	_____
(7)	T460 Introduction to Permits	_____	_____
(8)	474 Continuous Emission Monitoring	_____	_____
(9)	482 Sources and Control of Volatile Organic Air Pollutants	_____	_____

"SI" = Self-Instructional Courses "T" = Telecourses through Satellite Broadcasting

*Represent core courses which should be completed in the first year. Others should be taken at the rate of approximately 2 classes per year.

Elective	TRAINING COORDINATOR	DATE
A. Courtesy Under Pressure (Irwin Votech)	_____	_____

_____ has satisfactorily completed all training requirements.

Training Coordinator_____ Date_____

Director_____ Date_____

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On-The-Job-Training
Air Toxics Engineer

NAME: _____ TRAINER: _____

JOB TITLE: _____ SUPERVISOR: _____

DATE INITIATED: _____

In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following:			
Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. FDEP 62-200 Series	____	____	____
F. Chapter 403, Florida Statutes	____	____	____
G. 40 CFR 50-75	____	____	____
H. Annual EPC Report for the most current calendar year	____	____	____
I. FDEP Latest Annual Work Plan	____	____	____
J. FDEP/Local Operating Agreement	____	____	____
K. ARMS Manual	____	____	____
L. PATS Manual	____	____	____
M. DARM's Guidance Manual	____	____	____
N. FDEP Organizational Charts	____	____	____
O. EPC Data Orientation	____	____	____

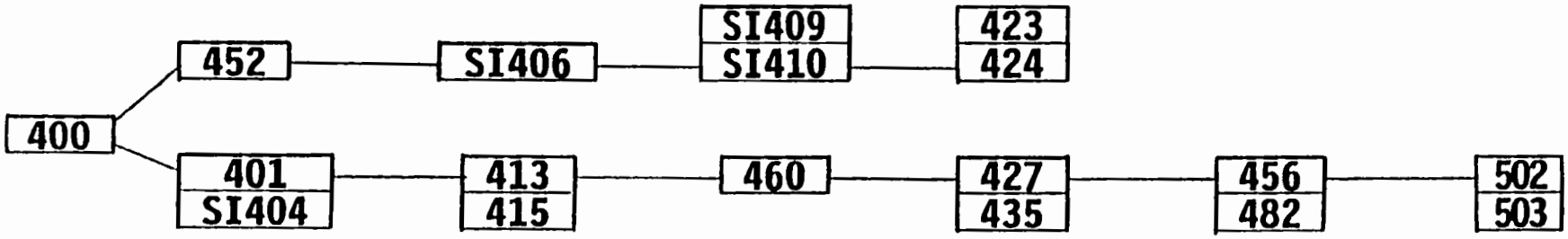
On-The-Job-Training
Air Toxics Engineer (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Agency Complaints SOP (Tab C.13)	____	____	____
B. Agency Accident Prevention Program SOP (Tab A.9)	____	____	____
C. Agency Enforcement SOP (Tab C.11)	____	____	____
D. Air Division Toxics Review Procedures SOP (Tab F)	____	____	____
E. Air Division Enforcement SOP (Tab O)	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. Visible emission school (classroom and smoke reading)	____	____
B. Performance Management for Supervisors (Civil Service)	____	____
C. Asbestos TREEO Course - 5 day (for supervisor)		
D. EPA Courses (* Denotes courses to be completed within first 12 months):		
*(1) SI:422 Air Pollution Control Orientation Course	____	____
*(2) SI:445 Introduction to Baselin Source Inspection Techniques	____	____
*(3) APTI446 Inspection Procedures and Safety	____	____

Continuing Education Courses



On-The-Job-Training
Air Toxics Engineer (Continued)

		TRAINING COORDINATOR	DATE
(1)	400 Introduction to Air Toxics	_____	_____
(2)	452 Principles & Practice of Air Pollution Control	_____	_____
(3)	SI:406 Effective Stack Height/Plume Rise	_____	_____
(4)	SI:409 Basic Air Pollution Meteorology	_____	_____
(5)	SI:410 Introduction to Dispersion Modeling	_____	_____
(6)	423 Air Pollution Dispersion Models - Application	_____	_____
(7)	424 Source Receptor Modeling Workshop	_____	_____
(8)	401 Monitoring and Evaluation of Hazardous Air Pollutants	_____	_____
(9)	SI:404 Urban Air Toxics	_____	_____
(10)	413 Control of Particulate Emissions	_____	_____
(11)	415 Control of Gaseous Emissions	_____	_____
(12)	460 Introduction to Permits	_____	_____
(13)	427 Combustion Evaluation	_____	_____
(14)	435 Atmospheric Sampling	_____	_____
(15)	456 Fugitive VOC Leak Detection	_____	_____
(16)	482 Sources & Control of Volatile Organic Air Pollutants	_____	_____
(17)	502 Hazardous & Waste Incineration	_____	_____
(18)	503 Accident & Emergency Management	_____	_____

"SI" = Self-Instructional Courses "T" = Telecourses through Satellite Broadcasting

Elective	TRAINING COORDINATOR	DATE
A. Courtesy Under Pressure (Irwin Votech)	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Asbestos Inspector

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOP	____	____	____
B. Air Management SOP	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. FDEP 62-200 Series	____	____	____
F. Chapter 403, Florida Statutes	____	____	____
G. 40 CFR 50-75	____	____	____
H. Annual EPC Report for the most current calendar year	____	____	____
I. FDEP Latest Annual Work Plan	____	____	____
J. FDEP/Local Operating Agreement	____	____	____
K. ARMS Manual	____	____	____
L. PATS Manual	____	____	____
M. DARM's Guidance Manual	____	____	____
N. FDEP Organizational Charts	____	____	____
O. EPC Data Orientation	____	____	____

On-The-Job-Training
Asbestos Inspector (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Agency Complaint SOP (Tab C.13)	____	____	____
B. Agency Accident Prevention Program SOP (Tab A.9)	____	____	____
C. Agency Enforcement SOP (Tab C.11)	____	____	____
D. Air Division Demo/Reno SOP (Tab E)	____	____	____
E. Air Division Enforcement (Tab O)	____	____	____
6. Complete the following:			
A. OSHA's "More Than a Paycheck"	____	____	____
B. OSHA's "Asbestos: The Way to a Dusty Death"	____	____	____
C. OSHA's "Asbestos: Finding the Hidden"	____	____	____
D. OSHA's "Doing It Right"	____	____	____
E. Guidelines for Asbestos NESHAP Demo/Reno Inspection Procedures (Reference Training Library)	____	____	____

7. Formal Training

Mandatory	TRAINING COORDINATOR	DATE
A. Visible emission school (classroom and smoke reading)	____	____
B. Performance Management for Supervisors (Civil Service)	____	____
C. TREEO's "Asbestos Project Management Supervision"	____	____
D. Courses (* Denotes courses to be taken within first 12 months) (** Annual refresher must be completed to keep certification)		
*(1) SI:422 Air Pollution Control Orientation Course	____	____
*(2) SI:445 Introduction to Baseline Source Inspection Techniques	____	____
*(3) APTI446 Inspection Procedures & Safety	____	____
(4) SI:443 Chain of Custody Procedures	____	____
(5) APTI350 Asbestos NESHAP Inspection & Safety Procedures Workshop	____	____
**(6) TREEOs Annual "Project Management Supervisor" Refresher	____	____

"SI" = Self-Instructional Courses

On-The-Job-Training
Asbestos Inspector (Continued)

Elective	TRAINING COORDINATOR	DATE
A. Courtesy Under Pressure (Irwin Votech)	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Air Permit Specialist

NAME: _____ TRAINER: _____

JOB TITLE: _____ SUPERVISOR: _____

DATE INITIATED: _____

In-House Training

	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. FDEP 62-200 Series	____	____	____
F. Chapter 403, Florida Statutes	____	____	____
G. 40 CFR 50-75	____	____	____
H. Annual EPC Report for the most current calendar year	____	____	____
I. FDEP Latest Annual Work Plan	____	____	____
J. FDEP/Local Operating Agreement	____	____	____
K. ARMS Manual	____	____	____
L. PATS Manual	____	____	____
M. DARM's Guidance Manual	____	____	____
N. FDEP Organizational Charts	____	____	____
O. EPC Data Orientation	____	____	____

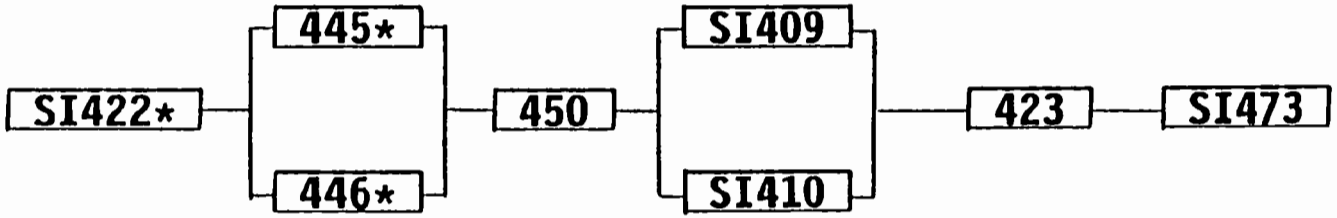
B401

On-The-Job-Training
Air Permit Specialist (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Industrial Source Application Review Procedures (Division)	____	____	____
B. Enforcement Procedures (Division)	____	____	____
C. Responding to Complaints and Issuing Warning Notices (Agency)	____	____	____
D. Agency Enforcement (Agency)	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. Visible emission school (classroom and smoke reading)	____	____
B. EPA Courses:		



	TRAINING COORDINATOR	DATE
(1) SI:422 Air Pollution Control Orientation	____	____
(2) SI:445 Introduction to Baseline Source Inspection Techniques	____	____
(3) T446 Inspection Safety Procedures	____	____
(4) 450 Source Sampling for Pollutants	____	____
(5) SI:409 Basic Air Pollution Meteorology	____	____
(6) SI:410 Introduction to Dispersion Modeling	____	____
(7) 423 Air Pollution Dispersion Models	____	____
(8) SI:473A Beginning Environmental Statistical Techniques	____	____
SI:473B Introduction to Environmental Statistics	____	____

"SI" = Self-Instructional Courses "T" = Telecourses through Satellite Broadcasting

*Represent core courses which should be completed in the first year. Others should be taken at the rate of approximately 2 classes per year.

On-The-Job-Training
Air Permit Specialist (Continued)

Elective	TRAINING COORDINATOR	DATE
A. Courtesy Under Pressure (Irwin Votech)	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

B403

On-The-Job-Training
Air Permit Engineer

NAME: _____ TRAINER: _____

JOB TITLE: _____ SUPERVISOR: _____

DATE INITIATED: _____

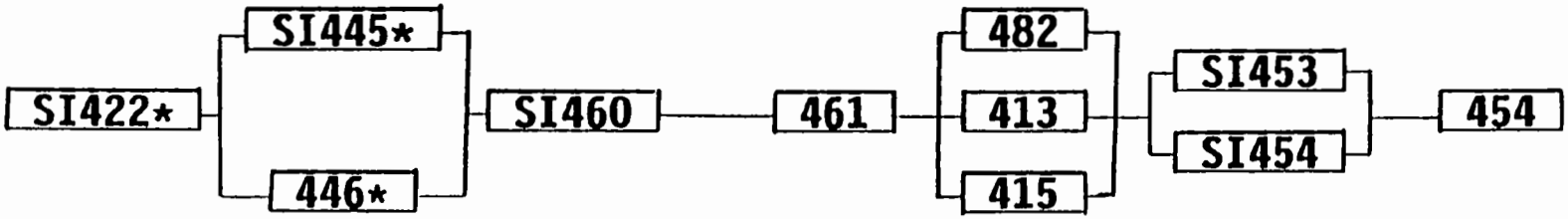
	EMPLOYEE	SUPERVISOR	DATE
In-House Training			
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following:			
Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. FDEP 62-200 Series	____	____	____
F. Chapter 403, Florida Statutes	____	____	____
G. 40 CFR 50-75	____	____	____
H. Annual EPC Report for the most current calendar year	____	____	____
I. FDEP Latest Annual Work Plan	____	____	____
J. FDEP/Local Operating Agreement	____	____	____
K. ARMS Manual	____	____	____
L. PATS Manual	____	____	____
M. DARM's Guidance Manual	____	____	____
N. FDEP Organizational Charts	____	____	____
O. EPC Data Orientation	____	____	____

On-The-Job-Training
Air Permit Engineer (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Industrial Source Application Review Procedures (Division)	____	____	____
B. Toxics Review Procedures (Division)	____	____	____
C. Responding to Complaints and Issuing Warning Notices (Agency)	____	____	____
D. Agency Enforcement (Agency)	____	____	____
E. Enforcement Procedures (Division)	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. Visible emission school (classroom and smoke reading)	____	____
B. Performance Management for Supervisors (Civil Service)	____	____
C. EPA Courses:		



	TRAINING COORDINATOR	DATE
(1) SI:422 Air Pollution Control Orientation	____	____
(2) SI:445 Introduction to Baseline Source Inspection Techniques	____	____
(3) T446 Inspection Safety Procedures	____	____
(4) T460 Introduction to Permits	____	____
(5) T461 Intermediate Permitting	____	____
(6) 482 Sources and Control of Volatile Organic Air Pollutants	____	____
(7) 413 Control of Particulate Emissions	____	____
(8) 415 Control of Gaseous Emissions	____	____

On-The-Job-Training
Air Permit Engineer (Continued)

Mandatory	TRAINING COORDINATOR	DATE
(9) SI:453 Overview of PSD Regulations	_____	_____
(10) SI:454 Fundamentals of Effective Permit Drafting and Analysis	_____	_____
(11) 454 Effective Permit Writing Workshop	_____	_____

"SI" = Self-Instructional Courses "T" = Telecourses through Satellite Broadcasting

*Represent core courses which should be completed in the first year. Others should be taken at the rate of approximately 2 classes per year.

Elective	TRAINING COORDINATOR	DATE
A. Courtesy Under Pressure (Irwin Votech)	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

B407

On-The-Job-Training
Air Compliance Specialist

NAME: _____ TRAINER: _____

JOB TITLE: _____ SUPERVISOR: _____

DATE INITIATED: _____

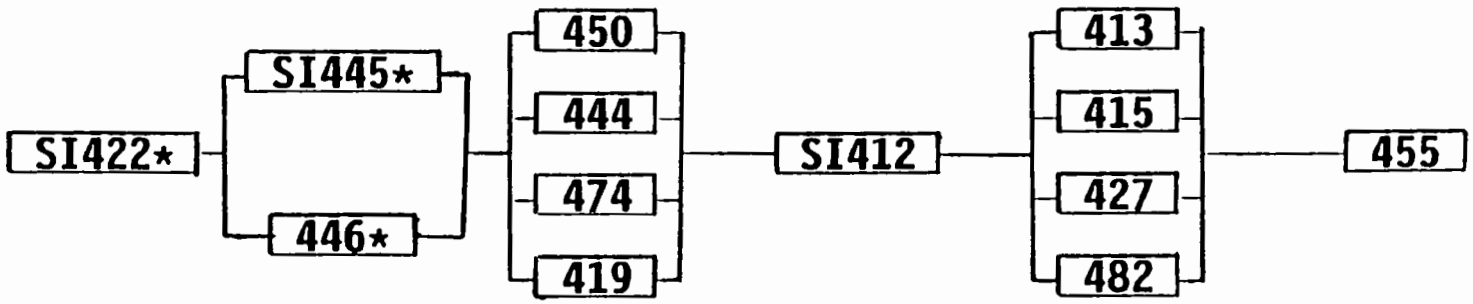
	EMPLOYEE	SUPERVISOR	DATE
In-House Training			
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. FDEP 62-200 Series	____	____	____
F. Chapter 403, Florida Statutes	____	____	____
G. 40 CFR 50-75	____	____	____
H. Annual EPC Report for the most current calendar year	____	____	____
I. FDEP Latest Annual Work Plan	____	____	____
J. FDEP/Local Operating Agreement	____	____	____
K. ARMS Manual	____	____	____
L. PATS Manual	____	____	____
M. DARM's Guidance Manual	____	____	____
N. FDEP Organizational Charts	____	____	____
O. EPC Data Orientation	____	____	____

On-The-Job-Training
Air Compliance Specialist (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Type I Audit Procedures (Division)	____	____	____
B. Type II Audit Procedures (Division)	____	____	____
C. CDS Type III Audit Procedures (Division)	____	____	____
D. Continuous Emission Monitor Audit Procedures and Strategy (Division)	____	____	____
E. Agency Enforcement (Agency)	____	____	____
F. Enforcement Procedures (Division)	____	____	____
G. Responding to Complaints and Issuing Warning Notices (Agency)	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. Visible emission school (classroom and smoke reading)	____	____
B. Performance Management for Supervisors (Civil Service)	____	____
C. EPA Courses:		



	TRAINING COORDINATOR	DATE
(1) SI:422 Air Pollution Control Orientation	____	____
(2) SI:445 Introduction to Baseline Source Inspection Techniques	____	____
(3) T446 Inspection Safety Procedures	____	____
(4) 450 Source Sampling for Pollutants	____	____
(5) 444 Air Pollution Field Enforcement	____	____
(6) 474 Continuous Emission Monitoring	____	____

On-The-Job-Training
Air Compliance Specialist (Continued)

		TRAINING COORDINATOR	DATE
(7)	T419 Preparation of Emission Inventories	_____	_____
(8)	SI:412A Fabric Filter Operation Review	_____	_____
	SI:412B Electrostatic Precipitator Plan Review	_____	_____
	SI:412C Wet Scrubber Plan Review	_____	_____
(9)	413 Control of Particulate Emissions	_____	_____
(10)	415 Control of Gaseous Emissions	_____	_____
(11)	427 Combustion Evaluation	_____	_____
(12)	482 Sources and Control of Volatile Organic Air Pollutants	_____	_____
(13)	455 Advanced Inspections Techniques	_____	_____

"SI" = Self-Instructional Courses "T" = Telecourses through Satellite Broadcasting

*Represent core courses which should be completed in the first year. Others should be taken at the rate of approximately 2 classes per year.

Elective	TRAINING COORDINATOR	DATE
A. Courtesy Under Pressure (Irwin Votech)	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Air Compliance Engineer

NAME: _____ TRAINER: _____

JOB TITLE: _____ SUPERVISOR: _____

DATE INITIATED: _____

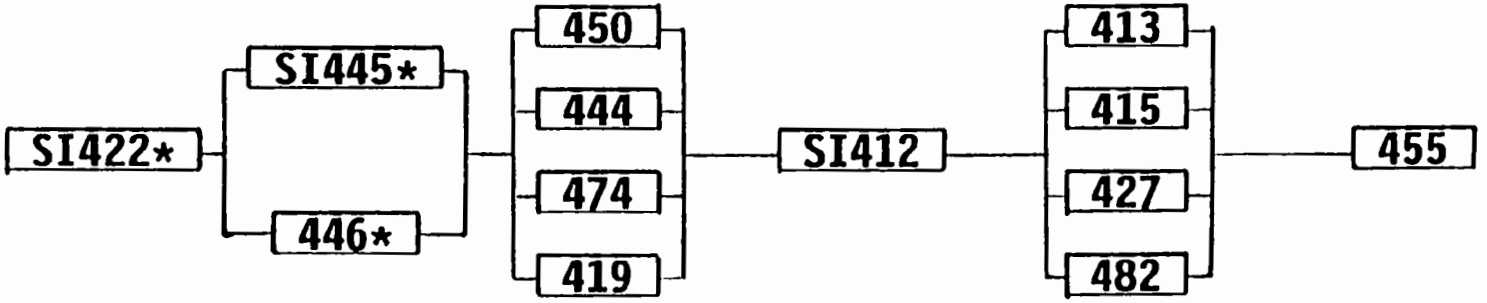
In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. FDEP 62-200 Series	____	____	____
F. Chapter 403, Florida Statutes	____	____	____
G. 40 CFR 50-75	____	____	____
H. Annual EPC Report for the most current calendar year	____	____	____
I. FDEP Latest Annual Work Plan	____	____	____
J. FDEP/Local Operating Agreement	____	____	____
K. ARMS Manual	____	____	____
L. PATS Manual	____	____	____
M. DARM's Guidance Manual	____	____	____
N. FDEP Organizational Charts	____	____	____
O. EPC Data Orientation	____	____	____

On-The-Job-Training
Air Compliance Engineer (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Type I Audit Procedures (Division)	____	____	____
B. Type II Audit Procedures (Division)	____	____	____
C. CDS Type III Audit Procedures (Division)	____	____	____
D. Continuous Emission Monitor Audit Procedures and Strategy (Division)	____	____	____
E. Agency Enforcement (Agency)	____	____	____
F. Enforcement Procedures (Division)	____	____	____
G. Responding to Complaints and Issuing Warning Notices (Agency)	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. Visible emission school (classroom and smoke reading)	____	____
B. Performance Management for Supervisors (Civil Service)	____	____
C. EPA Courses:		



	TRAINING COORDINATOR	DATE
(1) SI:422 Air Pollution Control Orientation	____	____
(2) SI:445 Introduction to Baseline Source Inspection Techniques	____	____
(3) T446 Inspection Safety Procedures	____	____
(4) 450 Source Sampling for Pollutants	____	____
(5) 444 Air Pollution Field Enforcement	____	____
(6) 474 Continuous Emission Monitoring	____	____

On-The-Job-Training
Air Compliance Engineer (Continued)

		TRAINING COORDINATOR	DATE
(7)	T419 Preparation of Emission Inventories	_____	_____
(8)	SI:412A Fabric Filter Operation Review	_____	_____
	SI:412B Electrostatic Precipitator Plan Review	_____	_____
	SI:412C Wet Scrubber Plan Review	_____	_____
(9)	413 Control of Particulate Emissions	_____	_____
(10)	415 Control of Gaseous Emissions	_____	_____
(11)	427 Combustion Evaluation	_____	_____
(12)	482 Sources and Control of Volatile Organic Air Pollutants	_____	_____
(13)	455 Advanced Inspections Techniques	_____	_____

"SI" = Self-Instructional Courses "T" = Telecourses through Satellite Broadcasting

*Represent core courses which should be completed in the first year. Others should be taken at the rate of approximately 2 classes per year.

Elective	TRAINING COORDINATOR	DATE
A. Courtesy Under Pressure (Irwin Votech)	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Assistant Director-Technical Air Operations Department

NAME: _____ TRAINER: _____

JOB TITLE: _____ SUPERVISOR: _____

DATE INITIATED: _____

In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. Annual EPC Report for the most current calendar year	____	____	____
F. Air Monitoring Standard Operating Procedures	____	____	____
G. State of Florida Quality Assurance Plan	____	____	____
H. 40 CFR Part 50 - Air Quality Standards	____	____	____
I. 40 CFR Part 58 - Ambient Air Quality Surveillance	____	____	____
J. EPA Guideline Documents and Technical Assistance Documents	____	____	____
K. Manufacturer's Manuals for Ambient Air Monitoring Equipment	____	____	____
L. Quality Assurance Handbook for Ambient Air Quality Monitoring Systems Vol I, II and IV	____	____	____
M. FDEP DARM office operations	____	____	____
N. Fully comprehend County Comprehensive Growth Management Plan	____	____	____
O. Chapter 62-2, F.A.C., "Air Pollution"	____	____	____
P. Clean Air Act and the Clean Air Act Amendments, 1990	____	____	____
Q. Ozone SIP	____	____	____

On-The-Job-Training
Assistant Director-Technical Air Operations Department (Continued)

	EMPLOYEE	SUPERVISOR	DATE
R. Parts II and III of Transportation Engineering, by J.C. Yu	____	____	____
S. Motor Vheilce Emissions Control self-paced series, provided by US EPA	____	____	____
T. Conformity Regulation, 40 CFR 51 and 93	____	____	____
U. Maintenance Plan and 1990 Baseline Emissions Inventory	____	____	____
V. Procedures of DRI's, EIS's, the LRTP, and the TIP	____	____	____
W. ISTEA and Federal Transportation Policy	____	____	____
5. Working knowledge of the following:			
A. Office administrative procedures	____	____	____
B. Office telephone and PC network	____	____	____
C. Complete 2 weeks escorted field investigation operations	____	____	____
D. Use, preparation, and completion of enforcement forms (Complaint Report, Warning Notice, NOI, and Citation)	____	____	____
E. Sample-gathering and procedures on sample collection	____	____	____
F. Continuous Analyzers, Operation, Calibration	____	____	____
G. Particulate Sampling	____	____	____
H. Network Design and Probe Siting	____	____	____
I. Air Quality Index/Episode Monitoring	____	____	____
J. Quality Assurance/Quality Control	____	____	____
K. Data Handling/IBM PC computer	____	____	____
L. Preparation of Technical Specifications for Air Monitoring Equipment	____	____	____
M. Calibration, operation, checks and services on all Noise Analyzers	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. CSU or equivalent course, or OJT period of training on automobile emissions control technology, vehicle maintenance, and mobile A/C operations	____	____
B. Hands-on introductory training in basic MOBILE series, CAL3AHC, and VMT or related inputs systems such as FSUTHS	____	____

On-The-Job-Training
Assistant Director-Technical Air Operations Department (Continued)

	TRAINING COORDINATOR	DATE
C. EPA Courses:		
(1) 400 Introduction to Air Toxics	____	____
(2) 411 Air Pollution Dispersion Models	____	____
(3) 413 Control of Particulate Emissions	____	____
(4) 415 Control of Gaseous Emissions	____	____
(5) 435 Atmospheric Sampling	____	____
(6) 452 Principles and Practice of Air Pollution Control	____	____
(7) 463 Ambient Air Quality Monitoring Systems	____	____
(8) 464 Analytical Methods for Air Quality Standards	____	____
D. Fully comprehend Chapter 62-256, FAC	____	____
E. Fully comprehend Chapter 51-2, FAC	____	____
F. Fully comprehend Interagency Agreements between EPC/DOF/DEP/HCFD	____	____
G. Complete refresher review of Chapter 1-4, Rules of EPC/HC	____	____
H. Complete noise training manual	____	____
I. Fully comprehend Part II, Handbook of Environmental Engineering	____	____
J. CARB 100 Level Series	____	____

Elective	TRAINING COORDINATOR	DATE
A. Personnel Management	____	____
B. Budgeting	____	____

_____ has satisfactorily completed all training requirements.

Training Coordinator_____ Date_____

Director_____ Date_____

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On-The-Job-Training
Field Investigation/Mobile Source Control Supervisor

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

	EMPLOYEE	SUPERVISOR	DATE
In-House Training			
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOP	____	____	____
B. Air Division SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. Annual EPC Report for the most current calendar year	____	____	____
F. FDEP DARM office operations	____	____	____
G. Fully comprehend County Comprehensive Growth Management Plan	____	____	____
H. Chapter 62-2, F.A.C., "Air Pollution"	____	____	____
I. Title I, II, VI of the Clean Air Act Amendments, 1990	____	____	____
J. Ozone SIP	____	____	____
K. Parts II and III of Tranpsortation Engineering, by J.C. Yu	____	____	____
L. Motor Vehicle Emissions Control self-paced series, provided by US EPA	____	____	____
M. Conformity Regulation, 40 CFR 51 and 93	____	____	____
N. Maintenance Plan and 1990 Baseline Emissions Inventory	____	____	____
O. Procedures of DRI's, EIS's, the LRTP, and the TIP	____	____	____

On-The-Job-Training
Field Investigation/Mobile Source Control Supervisor (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Office administrative procedures	____	____	____
B. Office telephone and PC network	____	____	____
C. Complete 2 weeks escorted field investigation operations	____	____	____
D. Use, preparation, and completion of enforcement forms (Complaint Report, Warning Notice, NOI, and Citation)	____	____	____
E. Sample-gathering and procedures on sample collection	____	____	____
F. Calibration, operation, checks and services on all Noise Analyzers	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. CSU or equivalent course, or OJT period of training on automobile emissions control technology, vehicle maintenance, and mobile A/C operations	____	____
B. Hands-on introductory training in basic MOBILE series, CAL3AHC, and VMT or related inputs systems such as FSUTMS	____	____
C. EPA Courses:		
(1) 411 Air Pollution Dispersion Models	____	____
(2) 452 Principles and Practice of Air Pollution Control	____	____
D. CARB 100 Level Series	____	____
E. Fully comprehend Chapter 62-256, FAC	____	____
F. Fully comprehend Chapter 51-2, FAC	____	____
G. Fully comprehend Interagency Agreements between EPC/DOF/DEP/HCFD	____	____
H. Complete refresher review of Chapter 1-4, Rules of EPC/HC	____	____

On-The-Job-Training
Field Investigation/Mobile Source Control Supervisor (Continued)

Elective	TRAINING COORDINATOR	DATE
A. Personnel Management	_____	_____
B. Budgeting	_____	_____
C. Statistical Methods	_____	_____
D. Management Information Systems	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Mobile Source Control/Transportation Specialist

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following:			
Operational/Technical Procedures, Rules or Regulations			
A. Air Division SOPs	____	____	____
B. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
C. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
D. FDEP DARM office operations	____	____	____
E. Fully comprehend County Comprehensive Growth Management Plan	____	____	____
F. Chapter 62-2, F.A.C., "Air Pollution"	____	____	____
G. Title I, II, VI of the Clean Air Act Amendments, 1990	____	____	____
H. Ozone SIP	____	____	____
I. Parts II and III of Transportation Engineering, by J.C. Yu	____	____	____
J. Motor Vehicle Emissions Control self-paced series, provided by US EPA	____	____	____
K. Conformity Regulation, 40 CFR 51 and 93	____	____	____
L. Maintenance Plan and 1990 Baseline Emissions Inventory	____	____	____
M. Procedures of DRI's, EIS's, the LRTP, and the TIP	____	____	____

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On-The-Job-Training
Mobile Source Control/Transportation Specialist (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Office administrative procedures	____	____	____
B. Office telephone and PC network	____	____	____
C. Complete 2 weeks escorted field investigation operations	____	____	____
D. Use, preparation, and completion of enforcement forms (Complaint Report, Warning Notice, NOI, and Citation)	____	____	____
E. Sample-gathering and procedures on sample collection	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. CSU or equivalent course, or OJT period of training on automobile emissions control technology, vehicle maintenance, and mobile A/C operations	____	____
B. Hands-on introductory training in basic MOBILE series, CAL3AHC, and VMT or related inputs systems such as FSUTMS	____	____
C. EPA Courses:		
(1) 411 Air Pollution Dispersion Models	____	____
(2) 452 Principles and Practice of Air Pollution Control	____	____
D. CARB 100 Level Series	____	____
Elective		
A. Personnel Management	____	____
B. Budgeting	____	____
C. Statistical Methods	____	____
D. Management Information Systems	____	____
E. Traffic Demand Management	____	____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Field Investigation Qualification

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Air Division SOPs	____	____	____
B. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
C. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
D. FDEP DARM office operations	____	____	____
5. Working knowledge of the following:			
A. Office administrative procedures	____	____	____
B. Office telephone and PC network	____	____	____
C. Complete 2 weeks escorted field investigation operations	____	____	____
D. Use, preparation, and completion of enforcement forms (Complaint Report, Warning Notice, NOI, and Citation)	____	____	____
E. Sample-gathering and procedures on sample collection	____	____	____

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On-The-Job-Training
Field Investigation Qualification (Continued)

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. Visible Emission Observer Certification	_____	_____
B. EPA Courses:		
(1) 452 Principles and Practice of Air Pollution Control	_____	_____
C. CARB 100 Level Series	_____	_____

Elective	TRAINING COORDINATOR	DATE
A. Personnel Management	_____	_____
B. Budgeting	_____	_____
C. Statistical Methods	_____	_____
D. Management Information Systems	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Data Handling/Data Quality Control Technician

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

	EMPLOYEE	SUPERVISOR	DATE
In-House Training			
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOP	____	____	____
B. Air Management SOP	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. Air Monitoring Standard Operating Procedures	____	____	____
F. Annual EPC Report for the most current year	____	____	____
F. State of Florida Quality Assurance Plan	____	____	____
G. 40 CFR Part 58 - Ambient Air Quality Surveillance	____	____	____
H. Quality Assurance Handbook for Ambient Air Quality Monitoring Systems Vol I, Section 1.4.17	____	____	____
5. Working knowledge of the following:			
A. Air Quality Index Generation	____	____	____
B. Basic Data Quality Control	____	____	____
C. Routine Strip-Chart QC and Handling	____	____	____
D. Basic Familiarization with Equipment	____	____	____
E. Filing Data Reports	____	____	____

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On-The-Job-Training
Data Handling/Data Quality Control Technician (Continued)

	EMPLOYEE	SUPERVISOR	DATE
F. IBM-PC Operation	____	____	____
G. Strip Chart Interpretation	____	____	____
H. Analyzer Daily Checks	____	____	____
I. Review of Daily Data Reports	____	____	____
J. IBM-PC Routine Data Handling	____	____	____
K. Strip Chart Troubleshooting	____	____	____
L. Data Logger Initialization and Troubleshooting	____	____	____
M. IBM - PC Data Editing	____	____	____
N. Manual Network Data QC	____	____	____
O. Calibration Verfications	____	____	____

6. Formal Training

Mandatory	TRAINING COORDINATOR	DATE
A. 435 Atmospheric Sampling	____	____
B. 464 Analytical Methods for Air Quality Standards	____	____
C. 470 Quality Assurance for Ambient Air Monitoring Systems	____	____

Elective	TRAINING COORDINATOR	DATE
A. State Sponsored Air Monitoring and Quality Assurance Workshops	____	____
B. Statistics	____	____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Noise Pollution Control Specialist

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

In-House Training	EMPLOYEE	SUPERVISOR	DATE
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOP	____	____	____
B. Air Management SOP	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. Completion of Field Investigation OJT Plan	____	____	____
5. Working knowledge of the following:			
A. Calibration, operation, checks and services on:			
(1) Lucas/CEL Mod 282 calibrator	____	____	____
(2) Quest 2800/OB100	____	____	____
(3) Quest CA-12B Calibrator	____	____	____
(4) GenRad 1565-B SLM	____	____	____
(5) GenRad GR1933 SLM/Octave Analyzer	____	____	____
(6) GenRad 1986 Omnical SLM	____	____	____

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On-The-Job-Training
Noise Pollution Control Specialist (Continued)

	EMPLOYEE	SUPERVISOR	DATE
(7) Metrosonics Mod dB307 SLM	_____	_____	_____
(8) Metrosonics Mod dB604 SLA	_____	_____	_____
(9) Lucas/CEL Mod 231 SLM	_____	_____	_____
(10) Metrosonics Calibrator Mod CL3	_____	_____	_____
B. Use, preparation, and completion of Noise monitoring Report forms and Noise Data Sheets	_____	_____	_____
C. Use of IBM-PC integration with appropriate Sound Level Analyzers	_____	_____	_____

6. Formal Training

Mandatory	TRAINING COORDINATOR	DATE
A. Complete the Smith training manual	_____	_____
B. Fully comprehend Chapter 1-10, Rules of the EPC/HC	_____	_____
C. Read Part II, Handbook of Environmental Engineering	_____	_____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Chief Air Monitoring Section

NAME: _____ TRAINER: _____

JOB TITLE: _____ SUPERVISOR: _____

DATE INITIATED: _____

	EMPLOYEE	SUPERVISOR	DATE
In-House Training			
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. Annual EPC Report for the most current calendar year	____	____	____
F. Air Monitoring Standard Operating Procedures	____	____	____
G. State of Florida Quality Assurance Plan	____	____	____
H. 40 CFR Part 50 - Air Quality Standards	____	____	____
I. 40 CFR Part 58 - Ambient Air Quality Surveillance	____	____	____
J. EPA Guideline Documents and Technical Assistance Documents	____	____	____
K. Manufacturer's Manuals for Ambient Air Monitoring Equipment	____	____	____
L. Quality Assurance Handbook for Ambient Air Quality Monitoring Systems Vol I, II and IV	____	____	____

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On-The-Job-Training
Chief Air Monitoring Section (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Continuous Analyzers, Operation, Calibration	____	____	____
B. Particulate Sampling	____	____	____
C. Network Design and Probe Siting	____	____	____
D. Air Quality Index/Episode Monitoring	____	____	____
E. Quality Assurance/Quality Control	____	____	____
F. Data Handling/IBM PC computer	____	____	____
G. Preparation of Technical Specifications for Air Monitoring Equipment	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. 400 Introduction to Air Toxics	____	____
B. 435 Atmospheric Sampling	____	____
C. 463 Ambient Air Quality Monitoring Systems	____	____
D. 464 Analytical Methods for Air Quality Standards	____	____
E. Air Pollution Meteorology	____	____

Elective	TRAINING COORDINATOR	DATE
A. Personnel Management	____	____
B. Budgeting	____	____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Air Monitoring Field Operations Supervisor

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

	EMPLOYEE	SUPERVISOR	DATE
In-House Training			
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. Annual EPC Report for the most current calendar year	____	____	____
F. Air Monitoring Standard Operating Procedures	____	____	____
G. State of Florida Quality Assurance Plan	____	____	____
H. 40 CFR Part 50 - Air Quality Standards	____	____	____
I. 40 CFR Part 58 - Ambient Air Quality Surveillance	____	____	____
J. EPA Guideline Documents and Technical Assistance Documents	____	____	____
K. Manufacturer's Manuals for Ambient Air Monitoring Equipment	____	____	____
L. Quality Assurance Handbook for Ambient Air Quality Monitoring Systems Vol I, II and IV	____	____	____

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On-The-Job-Training
Air Monitoring Field Operations Supervisor (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Continuous Analyzers, Operation, Calibration	____	____	____
B. Particulate Sampling	____	____	____
C. Network Design and Probe Siting	____	____	____
D. Air Quality Index/Episode Monitoring	____	____	____
E. Quality Assurance/Quality Control	____	____	____
F. IBM PC Operation	____	____	____
G. Data Handling/IBM PC computer	____	____	____
H. Preparation of Technical Specifications for Air Monitoring Equipment	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. 435 Atmospheric Sampling	____	____
B. 463 Ambient Air Quality Monitoring Systems	____	____
C. 464 Analytical Methods for Air Quality Standards	____	____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

Training Coordinator_____ Date_____

Assistant Director_____ Date_____

On-The-Job-Training
Continuous Monitoring/Electronic Technician

NAME: _____ TRAINER: _____
JOB TITLE: _____ SUPERVISOR: _____
DATE INITIATED: _____

	EMPLOYEE	SUPERVISOR	DATE
In-House Training			
1. County Orientation	____	____	____
2. Introduction/Briefings			
A. Agency Executive Director	____	____	____
B. AMD Director's Briefing	____	____	____
3. Safety Policies and Procedures			
A. Safety Requirements (Manual)	____	____	____
(1) Driver Training	____	____	____
(2) Safety Equipment	____	____	____
(3) Equipment Training	____	____	____
(4) First Aid and CPR	____	____	____
B. Hurricane Preparedness	____	____	____
4. Review and be familiar with the following: Operational/Technical Procedures, Rules or Regulations			
A. Agency's Administrative SOPs	____	____	____
B. Air Management SOPs	____	____	____
C. HCEPC Act (Chapter 84-446, Laws of Florida)	____	____	____
D. Chapter 1-1 through 1-12 of the Rules of EPC	____	____	____
E. Annual EPC Report for the most current calendar year	____	____	____
F. Air Monitoring Standard Operating Procedures	____	____	____
G. State of Florida Quality Assurance Plan	____	____	____
H. 40 CFR Part 50 - Air Quality Standards	____	____	____
I. 40 CFR Part 58 - Ambient Air Quality Surveillance	____	____	____
J. Manufacturer's Manuals for Ambient Air Monitoring Equipment	____	____	____
K. Quality Assurance Handbook for Ambient Air Quality Monitoring Systems Vol II	____	____	____
L. EPA Guideline Documents and Technical Assistance Documents (those pertaining to equipment or pollutant monitored by technician)	____	____	____

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B438

On-The-Job-Training
Continuous Monitoring/Electronic Technician (Continued)

	EMPLOYEE	SUPERVISOR	DATE
5. Working knowledge of the following:			
A. Analyzer Daily Checks	____	____	____
B. Analyzer Calibrations and Span/Precision Checks	____	____	____
C. Analyzer Maintenance	____	____	____
D. Analyzer Troubleshooting and Repair	____	____	____
E. Chart Recorder Calibration	____	____	____
F. Chart Recorder Maintenance	____	____	____
G. Chart Recorder Troubleshooting and Repair	____	____	____
H. Data Logger Daily Operation	____	____	____
I. Data Logger Calibration	____	____	____
J. Data Logger Maintenance	____	____	____
K. Data Logger Troubleshooting and Repair	____	____	____
L. Wiring Configurations for Air Monitoring Systems	____	____	____
M. Strip Chart Documentation	____	____	____
N. Data Quality Control	____	____	____
O. Calibration of Support Equipment	____	____	____

6. Formal Training

Desirable (Resources Permitting)	TRAINING COORDINATOR	DATE
A. 435 Atmospheric Sampling	____	____
B. 464 Analytical Methods for Air Quality Standards	____	____

Elective	TRAINING COORDINATOR	DATE
A. State Sponsored Air Monitoring and Quality Assurance Workshops	____	____
B. Manufacturers training courses for specific equipment	____	____

_____ has satisfactorily completed all training requirements.

Supervisor_____ Date_____

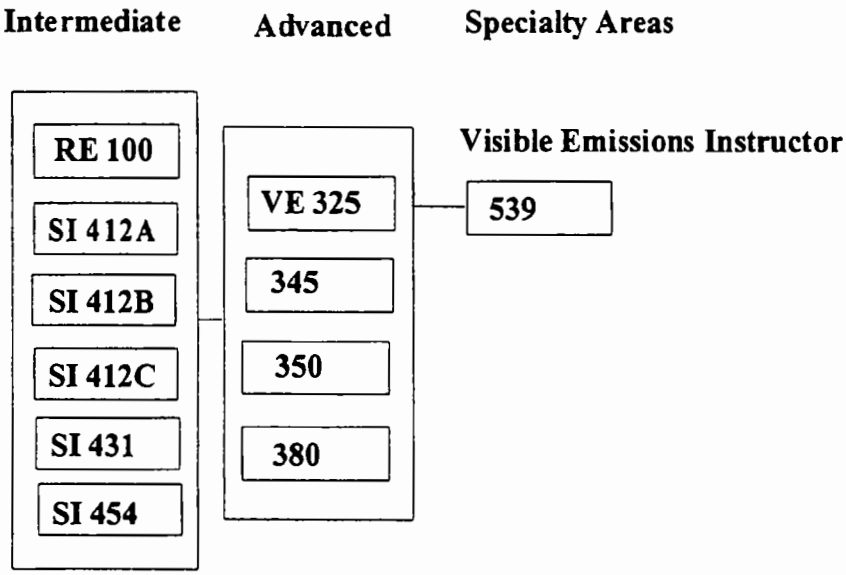
Training Coordinator_____ Date_____

Assistant Director_____ Date_____

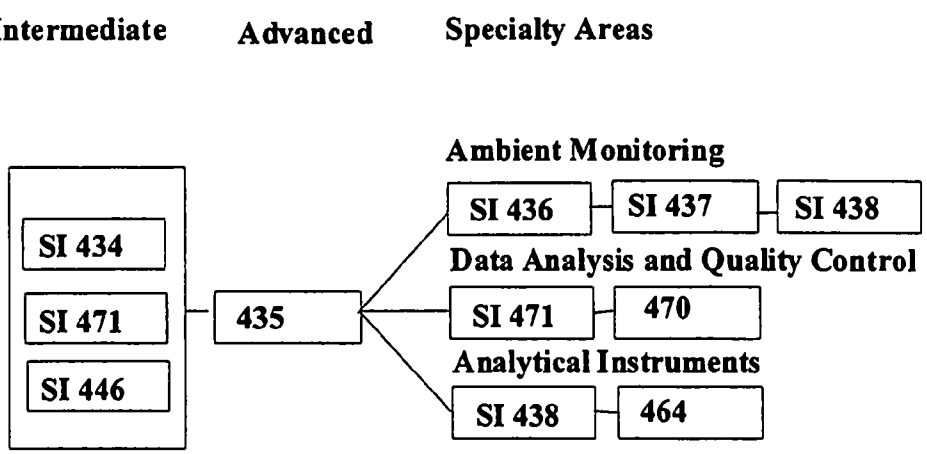
Air Pollution Training Institute Curriculum Guide

B439

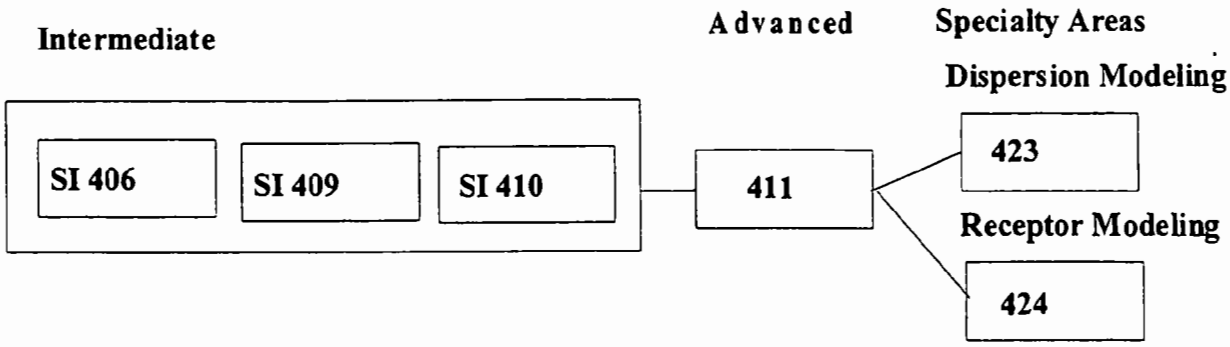
Compliance Assurance



Sampling and Analysis



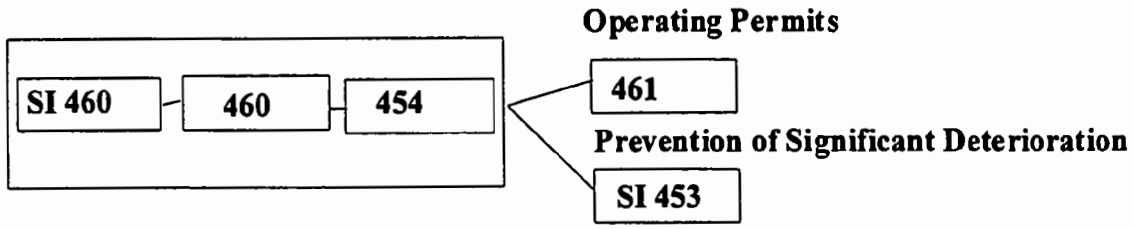
Meteorology and Modeling



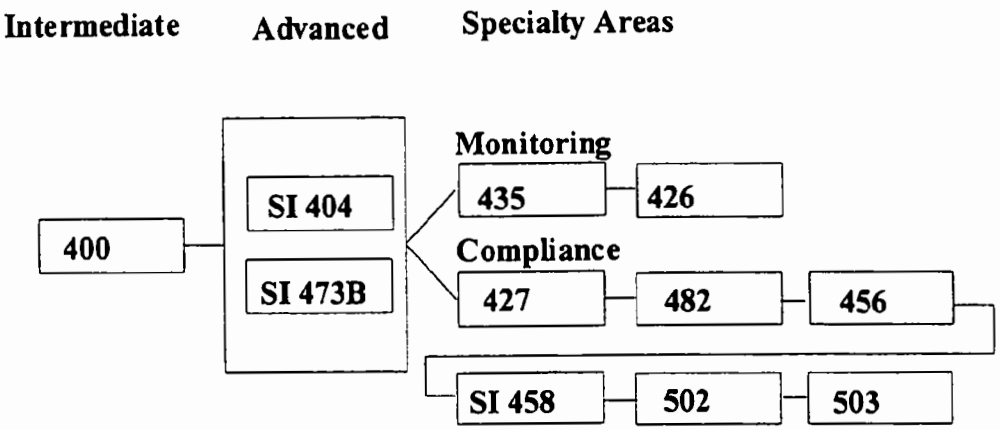
Air Permitting

Intermediate

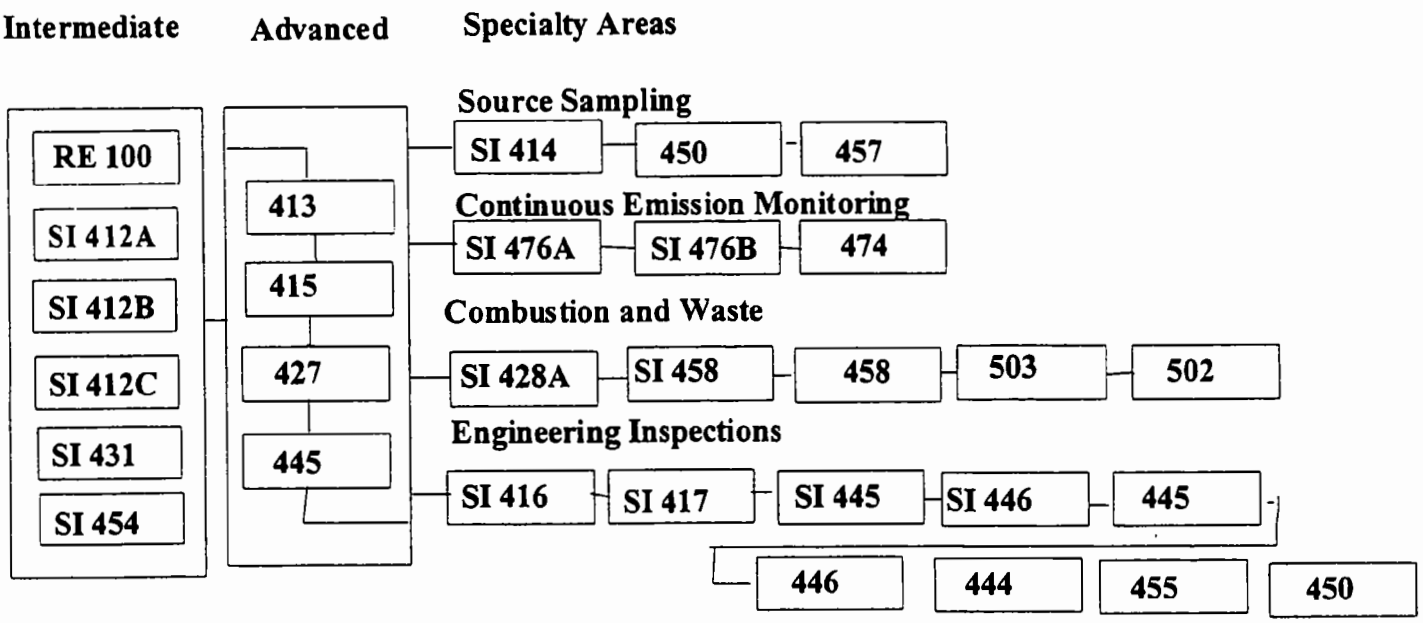
Specialty Areas



Hazardous Air Pollutants



Engineering



LISTING OF AVAILABLE TRAINING COURSES

Titles of Training Courses

The APTI conducts about 10 different courses each year from a total of 38 titles available through the Air Pollution Centers. The following is a list of all courses. If you are interested in having one of these courses presented, please contact the closest Air Training Center or Academy.

Compliance Training

345	Emission Capture and Gas Handling Systems Inspection
350	Asbestos NESHAP Inspection and Safety
380	VOC Emission Source Inspection

Technical Air Quality Training

400	Introduction to Hazardous Air Pollutants
401	Monitoring and Evaluation of Hazardous Air Pollutants
403	Statistical Analysis and Interpretation of Data for Toxic Air Pollutants
411	Air Pollution Dispersion Models - Fundamental Concepts
413	Control of Particulate Emissions
415	Control of Gaseous Emissions
419	Preparation of Emission Inventories
420	Air Pollution Microscopy
421	Environmental Management and Urban Systems Workshop
423	Air Pollution Dispersion Models - Applications
424	Source Receptor Modeling
426	Statistical Evaluation Methods for Air Pollution Data
427	Combustion Evaluation
435	Atmospheric Sampling
444	Air Pollution Field Enforcement
445	Baseline Source Inspection Techniques
446	Inspection Procedures and Safety
450	Source Sampling for Pollutants
452	Principles and Practices of Air Pollution Control
454	Effective Permit Writing
455	Advanced Inspection Techniques
456	Fugitive VOC Leak Detection
457	Advanced Source Sampling Workshop
458	Hazardous Waste Calculations Workshop
460	Introduction to Permits
461	Intermediate Permitting
464	Analytical Methods for Air Quality Standards
468	Source Sampling and Analysis of Gaseous Pollutants

470	Quality Assurance for Air Pollution Measurement Systems
474	Continuous Emission Monitoring
480	Control Measures for CO, O3 and NOx
482	Sources and Control of Volatile Organic Air Pollutants
502	Hazardous Waste Incineration
503	Accident and Emergency Management
539	Visible Emission Instructors Workshop

Section C

Training Providers

Table of Contents
Training Providers

Overview of Training Providers ..... Page C1

Air Pollution Training Institute ..... Page C3
APTI is part of the U.S. EPA, Office of Air Quality Planning and Standards, Education and Outreach Group. APTI offers courses via satellite as well as classroom courses at several universities and self-study courses.

California Air Resources Board (CARB) ..... Page C5
CARB offers basic and intermediate training as well as an advanced enforcement symposium. CARB's training outside of the State of California is provided through the National Air Compliance Training Delivery Project with support from EPA. This project enables CARB to offer the basic 100 series and the intermediate 200 series in states throughout the nation.

MARAMA ..... Page C13
The Mid-Atlantic Regional Air Management Association offers workshops designed for air directors and staff of state and local agencies in the mid-Atlantic region. MARAMA also provides funding for individuals to attend other training courses.

METRO 4 ..... Page C17
Metro 4 provides training for state and local agencies in EPA Region 4. It also provides support for individuals to attend other courses.

National Enforcement Training Institute (NETI) ..... Page C19
NETI offers training for compliance and enforcement personnel at the federal, state, local, and tribal levels. NETI manages three training sites, in Washington, DC; Lakewood, CO; and Glynco, GA.

Rutgers/EOHSI Air Pollution Training Center ..... Page C21
The Ruthers/EOHSI Training Center offers a curriculum designed to meet the requirements of EPA Order 3500.1 for compliance inspection personnel. The curriculum includes basic, intermediate, and advanced levels and is supported by EPA.

WESTAR ..... Page C25
The Western States Air Resources Council (WESTAR) offers training courses and workshops, primarily for member states, although events have been opened to others. The focus of the workshops is emerging EPA regulations and programs; WESTAR does not provide compliance and enforcement training.

Training Providers

This section of *Tools for Trainers* presents brief overviews of some of the major providers of air quality-related training. Each description includes information on how to contact the provider as well as the provider's mission, target audience, training courses offered, training methods, and other pertinent information. Many of the providers have Web sites on the Internet where you can find the most up-to-date course schedules.

USEPA,Education & Outreach Group Information Sheet

Agency:	US Env. Protection Agency, OAR, OAQPS, Information Transfer and Program Integration Division Education & Outreach Group		
Ag.Contact:	Howard Wright, Group Leader Education & Outreach Group	Or	Ron Townsend, Coordinator Air Pollution Training Institute
Telephone:	(919) 541-5584		(919) 541-2498
E-mail add:	wright.howard@epamail.epa.gov		townsend,ron@epamail.epa.gov
EOGWebPg:	www.epa.gov/oar/oaqps/eog		
Mission:	EOG manages the Air Pollution Training Institute(APTI) whose mission is to provide technical air pollution training, principally to State and local Air agencies to enhance skills necessary to understand and implement air programs and policies. In addition, the Env. Education program mission is to increase K-12 students' environmental literacy, encourage youth to pursue env. careers and enhance students' env. stewardship. Finally the Outreach Program strives to build new partnerships and strengthen existing ones in air areas by reaching out to non-traditional audiences with relevant information in a way that they can understand.		
Students:	18,000 -approx. no. of students trained in FY 1997.N.B.: This represents about 26,000 student days of training.		
Trg Mthds:	Classroom Satellite Downlink Self-study- including written materials, audio and video materials.		
Grth Area:	Our biggest growth area is in satellite training. Over the past four and one half years, the air pollution distance learning network (APDLN) has grown to about 110 down-link sites across the US and simultaneously the popularity of the telecasts has grown.		
Networks:	Other networks with which we are involved include: EPA Regional Offices, University-based Area Training Centers across the US, the Air and Waste Management Association, ACS, National Technological University and Univ. Of Tennessee System(for Small Business broadcasts).		
Mkt Niche:	Our niche in the training market is as follows: <u>Geographically</u>-we are a national training resource dedicated to the training needs of State and local air agencies. <u>Subject</u>- first-hand info. On emerging rules and regulations <u>Delivery</u>-Only National network of Downlink sites at S/L air agencies		
Funding:	Technical Training: 105 Grant funds; Env. Ed. & Outreach: EPA dollars. Personnel to support all of the above are provided by EPA funds.		
Needs:	We financially support and provide assistance in the Annual Needs Assessment conducted by STAPPA/ALAPCO		
Info:	Training information is available by e-mail, on diskette, via Internet and in catalog form.		

NATIONAL AIR COMPLIANCE TRAINING DELIVERY PROJECT: CARB V

I. **Agency, agency contact, phone number, e-mail address, www site.**

California Air Resources Board
Mary M. Boyer
(916) 322-6037
e-mail: mboyer@arb.ca.gov
http://arbis.arb.ca.gov/cd/training.htm

2. **Audience of your training.**

State/local/federal/tribal, as well as industry and environmental organization attendees; students predominantly compliance inspectors with engineers and planners in somewhat smaller numbers.

3 **Mission statement.**

The National Air Compliance Training Delivery Project is a multi-year, federal, state and locally funded program to demonstrate and deliver onsite California Air Resources Board 100 Basic Compliance Inspector training and to demonstrate, develop and deliver Series 200 specific source category training.

4. **Number of students trained in last fiscal year 96/97.**

A total of 108 class days were presented during fiscal year 96/97. This translates into a total of 2,626 student days of training.

5. **Method of training, i.e. classroom, downlink.**

All CARB 5 courses are conducted onsite by an ARB staff specialist and/or retired seniors that are hired as instructor/trainers through the National Council on Aging. The courses include classroom discussions, lectures, video/slide presentations with manuals. The Series 200 courses include a site visit as part of the course.

6. **What is the biggest growth area for your courses/training?**

The largest demand is the Series 200 courses, specifically the CEMs and observing source testing courses. We have scheduled the 200 courses already for 1999.

7. **What "networks" are you involved with that are not represented by this group?**

CARB works with all of the training coordinators for most of the 50 states and all of the ten EPA regions. CARB also works with the NETI, APTI and WESTAR.

8. **What is your niche in the training market: geographically, subject and delivery?**

Our courses have been taught to students from the entire United States, including Alaska and Hawaii. CARB 5 "niche" has been that the training has been onsite to maximize convenience and minimize travel costs for the state and local agencies that participate in the courses. Also the focus of the courses is compliance.

9. **Source of funding?**

All of the CARB 5 courses are funded through 105 funds.

10. **Do you (1) do an annual needs assessment and (2) did you participate in EPA needs assessment?**

The Air Resources Board does an annual needs assessment for the staff within the State of California. ARB also participated in EPA's assessment. ARB staff have been involved with the EPA needs assessment and have used the results to play for future training courses for the National CARB 6 program.

11. **Is your training information available electronically, by e-mail or on disk?**

The training schedule for CARB 5 is located on the STAPPA/ALAPCO training web page. Attached is a hard copy of that schedule. Also ARB's training schedule is on the web page indicated at the top of this paper.

100 SERIES -- 1997-1998 CARB-6 SCHEDULE AND STATE CONTACT

DATE	PROGRAM	LOCATION	REGION	STATE CONTACT
October 20-24	100 Series	Hartford, Connecticut	1	Dennis Demchak (860)424-3446
November 17-21	100 Series	Columbia, SC	4	Dennis Camit (803)734-3653
December ----	100 Series	DO NOT SCHEDULE		
January 5-9	100 Series	Honolulu, HI	9	Kathy Hendricks (808) 586-4200
February 2-6	100 Series	Louisville, KY	4	Michele Kent (502) 573-3382
March 9-13	100 Series	Murfreesboro, TN	4	Ron Culberson (615) 532-0561
April ??	100 Series	Kansas City, KS	7	Debbie Titus (913) 551-7712
May 11-15	100 Series	Philadelphia, PA	3	Humberto Monsalvo (215) 566-2163
June ??	100 Series	Oklahoma City, OK	6	David Gann (405) 290-8247
July 13-17	100 Series	Tampa, Florida	4	John Hughes (904) 921-9605
August ??	100 Series	None Scheduled		
September ??	100 Series	Indian Nations	7	Ira Salvini (913) 551-7817
October	100 Series	None scheduled		

Revised November 5, 1997

1998: OCTOBER
1998: NOVEMBER -- Phoenix, AZ
1998: DECEMBER -- DO NOT SCHEDULE

Revised: September 24,1997

200 Series CARB-6--1997-1998-- SCHEDULE AND STATE CONTACT

OCTOBER 1997

Oct 6-9	200	Phoenix, AZ	9	Barbara Roach (602) 506-6945

HMA - Al Danzig
VOC Controls - Al Danzig
Graphic Arts - Al Danzig
Solvent Cleaning - Al Danzig

October 20-23	200	Tuscon,AZ	9	Kathie Lawrence (520) 740-3369

Baghouses - Al Danzig
Industrial Boilers - R.C. Smith
Fugitive VOC - Al Danzig
Stationary Gas Turbines - R.C. Smith

NOVEMBER 1997

November 17-20	200	Miami, FL	4	Ray Gordon (305) 372-6925

Gas Facilities - Pete Gates
VOC Controls - Pete Gates
Fugitive VOC - Al Danzig
ESP's - Al Danzig

DECEMBER 1997

December 8-11	200	Houston, TX	6	Mary Knotts (713) 767-3719

VOC Control Devices/Scrubbers - Al Danzig
Fugitive VOC - Al Danzig
Petroleum Refining - Pete Gates

JANUARY 1998

January 12-15	200	Seattle, Washington	10	Rosemary Busterna (206) 689-4021

Solvent Cleaning -- Al Danzig
ESP -- Al Danzig
Soil Decontamination -- Mark Tavianini
Incinerators -- Mark Tavianini

FEBRUARY 1998

February 2-5	200	Oklahoma City, Oklahoma	6	David Gann (405) 290-8247

Aggregate Plants -- Al Danzig
Concrete Batch Plants -- Al Danzig
Oil Field Production -- Pete Gates
Gasoline Facilities -- Pete Gates

February 23-26	200	**Honolulu, Hawaii**	9	Kathy Hendricks (808) 586-4200

Concrete Batch Plants - Al Danzig
Solvent Cleaning - Al Danzig
Ambient Air Monitoring - R.C. Smith
Industrial Boilers - R.C. Smith

MARCH 1998

March 16-19 200 Columbia, S.Carolina 4 Dennis Camit
(803) 734-3653

Surface Coating:Metal - Al Danzig
Landfill Gas Facilities - Al Danzig
Fugitive VOC - Pete Gates
Gas Fac I & II - Pete Gates

APRIL 1998

April 6-9 200 Series Salt Lake City, Utah 8 Marv Maxell
(801) 536-4082

Aggregate Plants -- Al Danzig
Concrete Batch Plants -- Al Danzig
Ambient Air Monitoring -- R.C. Smith
Industrial Boilers -- R.C. Smith

MAY 1998

May 11-14 200 Lexington, MA (NESCAUM)1

Gasoline Facilities -- Pete Gates
VOC Controls -- Pete Gates
Fugitive VOC -- Al Danzig
Solvent Cleaning -- Al Danzig

JUNE 1998

June 8-11 200 Helena, Montana 8 Chuck Homer
(406) 444-5279

Cement Plants -- Sue Wyman
Hot Mix Asphalt -- Sue Wyman
ESP -- Al Danzig
Baghouses -- Al Danzig

June 29-2 200 Philadelphia, PA 3 Humberto Monsalvo
(215) 566-2163

Surface Coating:Metal -- Terone Preston
Surface Coating:Aerospace -- Terone Preston
Industrial Boilers -- whoever
Stationary Gas Turbines -- whoever

JULY 1998

July 13-16 200 Madison, Wisconsin 5 Penny Kanable
(608) 264-8892

Surface Coating:Metal -- Terone Preston
Surface Coating:Auto -- Terone Preston
Graphic Arts -- Al Danzig
VOC Controls -- Al Danzig

AUGUST 1998

August 10-13 200 Tampa, Florida 4 John Hughes
(904) 921-9605

HMA - Al Danzig
Concrete Batch Plants - Al Danzig
CEM - R.C. Smith
OST - R.C. Smith

August 24-27	200	Kansas City, KS	7	Debbie Titus (913) 551-7712
	Preferences not in yet			

SEPTEMBER 1998

Sept. 14-17	200	Phoenix, AZ	9	Barbara Roach (602) 506-6945
	Preferences not in yet			

FY 1998-1999

OCTOBER 1998

October 19-22	200 Series	Salt Lake City, UT	8	Marv Maxell (801) 536-4082
	CEM -- R.C. Smith OST -- R.C. Smith OFP -- Pete Gates (Classroom) OFP -- Pete Gates (Field Visit)			

NOVEMBER 1998

November 16-20	200	Seattle, WA	9	Rosemary Busterina (206)689-4021
	Course Preferences not in yet			

DECEMBER 1998

December 14-18	200 Series	Columbia, SC	4	Dennis Camit (803)734-3653
		OST -- R.C. Smith AMM -- R.C. Smith ? ?		

MARAMA 1997-1998

MARAMA 1997 Accomplishments

MARAMA Workshops and supported training sharpened member's skills:

- October 1996 Air Monitoring Workshop
- December 1996 support for attending NARSTO-NE Symposium
- January 1997 Workshop on New Ambient Standards
- February 1997 Title V Permits Workshop
- April 1997 Support for attending EPA PAMS Ozone Monitoring Workshop
- May 1997 Ozone Map Workshops with NESCAUM and OTC
- June 1997 Eastern States $PM_{2.5}$ Monitoring Workshop
- July 1997 Workshop on Communicating the new Air Quality Standards
- August 1997 support for attending EPA-STAPPA-ALAPCO Air Toxics Workshop
- September 1997 support for attending NCVECS Mobile Sources Conference

MARAMA contracts helped share information and accomplish regional goals:

- Developed the *1995 Ozone Atlas for the Mid-Atlantic Region*
- Helped fund the NESCAUM-MARAMA-OTC regional ozone mapping project, producing the first daily ozone maps for the entire Mid-Atlantic-Northeast regions
- Upgraded Mid-Atlantic air monitoring software to help create the ozone map
- Provided ongoing support for ozone modeling in the Baltimore-Washington areas
- Contributed to a NARSTO-NE project developing 1995 MM5 wind fields
- Met emergency needs at PAMS monitoring sites in Baltimore and DC
- Supported public education and technician training for advanced vehicle emissions inspection and maintenance programs

MARAMA encouraged cooperation and coordination among its members:

- Published a directory of key staff at member agencies and EPA
- Issued weekly regional ozone reports during the summer
- Initiated the region's first air quality data analysis plan
- Sponsored quarterly meetings of the MARAMA Air Directors
- Held numerous conference calls among technical committees and working groups

Strengthening the skills and capabilities of member agencies, and helping them work together to prevent and reduce air pollution in the Mid-Atlantic Region

Plans for 1998

MARAMA will continue to emphasize workshops and sponsored training. Plans include:

- Monitoring and Air Quality Data Analysis Workshop in October 1997
- Ozone Map End of Season Workshop in November 1997
- Vehicle Emissions Testing Workshop in December 1997
- PM_{25} Monitoring Training in January and June 1998
- Air Toxics workshop in February 1998
- Dispersion Modeling for Permit Writers in March 1998
- Enforcement Meeting
- Title V Permit Workshop & CAM Rule
- VOC Sampling and Controls

MARAMA contracts will be developed to meet the needs of member agencies. Projects are expected to include an air quality data analysis report, futher development of the ozone map, assistance with workshops, as needed support for PAMS monitoring, regional ozone modeling work, and support for high enhanced vehicle emissions inspection programs.

Coordination activities will continue to be an important MARAMA function, including quarterly Air Director's meetings, periodic technical conference calls, an updated MARAMA Directory, and the regional air quality data analysis plan.

MARAMA gratefully acknowledges the financial and technical support of the US Environmental Protection Agency, with particular assistance from EPA Region III, the Office of Mobile Sources, and the Office of Air Quality Planning and Standards.

Mid-Atlantic Regional Air Management Association
711 W. 40th St., Ste. 318, Baltimore, MD 21211-2109
410-467-0170

MARAMA 1997-1998

MARAMA FY 98 WORKSHOP PLANNING SCHEDULE

Updated
December 9, 1997

Month	Workshop	Location
October	Monitoring and Data Analysis Workshop Oct. 15-16	Rehoboth Beach
	Chromatography Data Handling Users Meeting (travel assistance) October 22-24	San Jose, CA
	MARAMA Executive Board Meeting Oct. 25	At STAPPA/ALAPCO in Michigan
November	Ozone Map Workshop (with NESCAUM & OTC) November 5-7	Baltimore
	MARAMA Data Analysis Conference Call Nov. 12	Conference Call
	NARSTO Continental Critical Review (travel assistance) November 16-19	West Palm Beach, FL
December	MARAMA Mobile Sources meeting plus "Understanding ASM Testing" Workshop by CSU December 16-18	Philadelphia
January	MARAMA Executive Board Annual Meeting Jan. 26	Williamsburg
	$PM_{2.5}$ Network Design Workshop Jan. 26-27	Williamsburg
February	MARAMA Toxics Workshop Feb. 18-19	Baltimore
March	Dispersion modeling for point sources workshop (tentatively scheduled for Mar. 24-26	Philadelphia
April	MARAMA Executive Board Meeting April 4	At STAPPA/ALAPCO in Alabama
April/May	VOC Sampling & VOC Control Technologies? schedule with Rutgers & ICAC (possibly switch timing w/ Title V in Sept?)	DC suburbs
May/June	$PM_{2.5}$ Monitoring Operation Workshop? Maybe have data analysis training concurrently?	(TBD—Phily lab?)

July	MARAMA Executive Board Meeting (TBD)	(TBD)
	Workshop with Board Meeting?	(TBD)
September	Title V & CAM Rule? (possibly switch timing w/ VOC in spring?)	(TBD)

* * * * *

Requested workshops to be scheduled:

Nitrogen emissions forum (Delaware request)

Statistics Training for Air Quality Analysis—probably S+

VOC sampling and analysis—bring Rutgers class to Baltimore area

VOC control technologies—to be presented by the Institute of Clean Air Companies

$PM_{2.5}$ training
Late summer or fall 1998—Hands-on Equipment Operation Training

Title V Permitting—Board has requested annual workshop

Training session on creating overhead slides

Health effects of ozone and fine particulates—maybe in Baltimore or RTP (with EPA and local health experts)

Workshop on new CAM rule

Sept/Oct–MARAMA Executive Board Meeting with STAPPA/ALAPCO meeting—likely to be late October

1 Agency, agency contact, phone no , e-mail address, www site

METRO 4, INC

Joan Liu, President METRO 4, INC

Joan Liu, President
METRO 4, INC
700 North Tryon Street
Charlotte, NC 28202

Phone 704-336-5500
Fax 704-336-4391
www liucs@mail charmeck nc us

Raymond Gregory, Training Coordinator, METRO 4, INC

Raymond Gregory
METRO 4, INC Training Office
2221 Preachtree Rd N E
Suite D-626
Atlanta, GA 30309

Phone 404/352-8808
Fax. 404/352-8818
E mail metro4@worldnet att net
Web Page www metro4 org

2 Audience of your training

Staff and management of the eight states and sixteen local air pollution control agencies in EPA Region 4

3 Mission Statement The objectives of METRO 4, INC , are

(a) To be a forum for communicating common local concerns to EPA Region 4,
(b) To function as a coordinating body with ALAPCO, Inc , and Headquarters EPA,
(c) To develop and improve cooperative relationships between local, federal and state governmental regulatory agencies,
(d) To function as a focal point for exchanging technical and regulatory information on air pollution control, and
(e) To serve as a recipient of funds and disbursing agent for the furtherance of education, training and related travel for persons engaged in air pollution control activities within the area comprising US EPA Region 4

4 No Of students trained in fiscal year 95/96

Three training courses were conducted in fiscal year 1996, 75 students attending
In addition, 200 students were assisted with training/travel expenses

5 Method of Training, i e classroom, downlink

Classroom is the primary method of training

6 What is the biggest growth area for your courses/training?

Increasing demand for courses

7 What networks are you involved with that are not represented by this group?

In addition to Group, other air pollution training consortia

8 What is your niche in the training market geographically, subject and delivery?

Geographically METRO 4, Inc , covers the eight states in EPA Region 4
Subjects Any training of benefit to air pollution control agencies in Region 4
Delivery Presently classroom training

9 Source of funding

A Section 103 grant form Region 4

10 Do you (1) do an annual needs assessment and (2) did you participate in EPA needs assessment?

(1) The first one was part of the recent Training Coordinators' Meeting (September 1997)
(2) Member agencies did participate in the FY 1997 survey (15 agencies)

11 Is your training information available electronically, by e-mail or on disk?

A Web Page is in the final testing phase and will shortly contain the schedule
www.metro4.org

Current course list There are three sessions of a CEM Auditing course and of a Stack Sampling for HAPS course scheduled

NETI
NATIONAL ENFORCEMENT TRAINING INSTITUTE

leadership for enforcing environmental laws

Purpose and History of NETI

NETI is responsible for training Federal, State, Local and Tribal lawyers, inspectors, civil and criminal investigators and technical experts in the enforcement of the nation's environmental laws. Congress created the National Enforcement Training Institute as a part of the Pollution Prosecution Act of 1990 (P.L. 101-592, 42 USC 4321) and is the only Congressionally mandated training entity within the U.S. Environmental Protection Agency. As of September 30, 1995, NETI is a division in the Office of Criminal Enforcement, Forensics and Training within the Office of Enforcement and Compliance Assurance.

In fiscal year 1996, **NETI and its partners trained almost 4700 environmental enforcement professionals** in approximately **50 civil and criminal environmental enforcement training courses**.

Facilities and Training Available

NETI's strategy is to promote a **balanced training approach** using traditional classroom training, distance learning, and cooperative agreements with other organizations. NETI and its partners offer quality training courses for enforcement personnel in a number of areas, such as:

- **case support**: courses for attorneys, inspectors and technical staff that cover things such as basic and multimedia inspections, case development, negotiation skills, and administrative hearings and trial experience.

- **specific statute enforcement**: courses for inspectors, investigators and attorneys that cover inspection techniques, regulations and specific issues for a statute.

- **compliance assistance**: courses for personnel that provide compliance assistance to the regulated community.

- **environmental criminal enforcement**: courses for criminal investigators, local law enforcement, and attorneys that cover techniques in recognizing and investigating environmental crime.

Besides providing training in EPA's Regional offices around the country and at other state locations, NETI manages three training sites:

- **NETI-HQ** in Washington, DC, includes state-of-the-art training space such as a computer development laboratory, a video conferencing room and a mock courtroom;

- **NETI-West** in Lakewood, CO, a suburb of Denver, offers a convenient training location for much of the western half of the U.S.; and

- **FLETC**, or the Federal Law Enforcement Training Center, in Glynco, GA provides training for EPA's criminal enforcement personnel.

Newest Course Offerings

NETI piloted a new course in a nationwide satellite broadcast in November 1996: **"Environmental Enforcement Negotiations Skills -- The Basics."** This new course teaches a variety of tools and tactics used to reach settlement, how to plan and prepare for a successful negotiation, and how to manage time wisely. The course materials, including video tapes, reference materials and facilitated simulations, will allow this course to be taught in a variety of settings.

NETI staff are developing a new computer-based course, **"Environmental Statute Review,"** that will provide an overview of seven major environmental statutes for which EPA is responsible. The course will be distributed on CD-ROM and will use graphics, animation, video, and narration to examine the background, major provisions, and enforcement authorities associated with each statute. NETI expects this course to be available in the spring of 1997.

For More Information...

Many NETI documents, such as the Catalogue and Schedule of Courses, can be faxed to you -- just call our NETI Hotline at ***1-800-EPA-NETI***. Visit our ***NETI World Wide Web Home Page*** at http://es.inel.gov/neti, or contact us on the ***EnviroSense Bulletin Board System*** by setting your modem to call 703-908-2092.

U.S. EPA - National Enforcement Training Institute
401 M St., SW (Mailcode 2235A)
Washington, DC 20460
Phone: 202-564-2430 Fax: 202-564-0075

December 1996

Rutgers/EOHSI Air Pollution Training Center

1. Agency: Environmental and Occupational Health Sciences Institute
   Public Education and Risk Communication Division
   681 Frelinghuysen Road, P.O. Box 1179, Piscataway, NJ 08855
   Contact: Dr. Robert Hague (732) 235-5443 e-mail haguero@umdnj.edu

2. Audience: Federal, state and local air pollution personnel and private industry

3. Mission Statement: The Air Pollution Compliance Training Center uses a curriculum-based approach to training; rather than as individual short courses. Our goal is to provide quality training to the air pollution regulatory community using a stepwise graded curriculum. The curriculum was originally designed in collaboration with USEPA for the purpose of providing the federal air pollution inspector with the minimum training necessary to conduct inspections under EPA Order 3500.1, however the program has found broad acceptance with state and local air pollution control agencies. The curriculum is six weeks in length and is broken down into two-week blocks of training known as Levels I, II, and III. These Levels were designed as a progression with each succeeding level being more technical in nature, with separate topics covered in one to four-day modules. By following the progression of training levels, the student avoids overlapping courses and is presented with the necessary skills to conduct effective field inspections.

4. Number of students trained in the last year: 620

5. Method of training: combination of classroom, site visit, hands-on laboratory, and (new this year) Internet-based distance education.

6. The largest growth area remains state and local enforcement agencies. The Center has had considerable success in the past year in conducting both the basic and advanced training levels at sites away from our base in New Jersey. It is our intention to continue to make our courses available throughout the U.S.

7. The Center is also affiliated with the University Network for Environmental Training (UNET), the Universities Occupational Safety and Health Educational Resource Center (UOSHERC), the Mid-Atlantic Asbestos Training Center (MAATC), USEPA Air Pollution Training Institute (APTI) and is a NIOSH training site.

8. Niche: Eastern U.S., Subjects: Air Pollution, Safety and Health, Compliance Inspection Procedures, Advanced Monitoring and Compliance Evaluation

9. Funding Source: EPA training contract, student tuition

10. Annual needs assessment: Yes

11. Training information available at www.eohsi.rutgers.edu/cet

Rutgers/EOHSI Air Pollution Training Center
1997-1998 EOHSI Air Pollution Training Schedule

Level I	
Overview of the Clean Air Act Amendments of 1990	Jan.26, 1998 Oct. 12, 1998
Principles and Practice of Air Pollution Control	Jan. 27-30, 1998 Oct. 13-16, 1998
Basic Health and Safety for Field Activities	Feb. 2-4, 1998 Oct.19-21,1998
Fundamentals of Environmental Compliance Inspections	Feb. 5-6, 1998 Oct. 22-23, 1998
Level II	
Basic Source Inspection Techniques	Feb. 23-25, 1998 Sept. 14-16, 1998
Continuous Emissions Monitoring Systems	Feb. 26-27, 1998 Sept. 17-18, 1998
VOC Sampling and Analysis	March 2, 1998 Sept. 21, 1998
Evaluation of Source Emission, Capture Transport & Testing Systems	March 3-6, 1998 Sept. 22-25, 1998
Level III	
General VOC Source Regulation and Inspection	Oct. 27-29, 1997 Apr. 27-29,1998 Nov. 2-4, 1998
VOC Fugitive Emissions	Oct. 30-31, 1997 Apr. 30- May 1, 1998
Combustion Source Inspection	Oct. 22-24, 1997 Apr. 22-24, 1998 Oct. 28-30, 1998

Level IV

Asbestos NESHAP Demolition & Removal	TBA
Inspection Procedures Workshop	
NOx Emissions Control	June 1-2, 1998
Compliance Assurance Monitoring	Spring, 1998 Oct. 6-7, 1998
Source Sampling for Particulates	Sept. 7-10, 1998
VOC RACT Compliance for Industrial Sources	Apr. 13-14, 1998

WESTAR Council
Western Regional Air Quality Training Center
Information Sheet

1. Western States Air Resources (WESTAR) Council Information:

Principal Contact Jeffrey P Gabler, Training Programs Manager
Phone (503) 220-1660
FAX (503) 220-1651
email jgabler@westar org
web site http //www westar org

2. Audience

WESTAR's training courses and workshops are designed for air regulatory agency staff (only) and range from introductory materials to advanced, policy-oriented workshops intended for experience staff

3 Mission Statement

"It is the Mission of the Western States Air Resources (WESTAR) Council to provide a forum to address air quality issues of common concern, to promote the exchange of information among the member states and to provide a foundation for effective air resource management "

4. Number of Student Trained During 1995, 1996 & 1997

1995 participants totaled 450, 1996 participants totaled 430, 1997 participants totaled 511

5. Method of Training Delivery

WESTAR courses and workshops are all conducted by onsite instructors at convenient hotels within the western states Personal interaction between the participants and the instructors is a very important element of WESTAR courses Workshops often include panels consisting of staff from state/local air agencies sharing information on how they have solved common problems

6. Area of Largest Growth in WESTAR's Training Program

Prior to 1997 the largest demand for WESTAR training has been in the area of Title V Operating Permit writing and policy In 1997, as expected, demand for WESTAR's PM2 5 Monitoring workshops was enormous and replaced Title V as our most popular workshop among member states During the upcoming year WESTAR expects continued large demand for particulate matter courses and additional courses are planned in this area

7. Other Networks

WESTAR works with the member states that sponsor our training courses to identify program and course priorities

8. WESTAR Niche in the Training Market

Our courses and workshops address emerging EPA programs and regulations that impact state/local air agencies and in areas where member states have indicated a high demand for training Courses are offered within the western United States and are exclusively face-to-face

9. Funding

All WESTAR courses our funded through 105 funds from the member states, EPA Regions 8, 9 or 10 and/or EPA OAQPS Education and Outreach Group (EOG)

10. Training Assessments

WESTAR's member states participate in STAPPA/ALAPCO needs assessment survey and conducts an annual a WESTAR member states needs assessment, if needed The Air Directors and WESTAR's Western Regional Air Quality Training Advisory Committee members determine future training topics

11. Training Information

More information on course scheduling, agendas and locations are available on WESTAR's web page (www westar org)

12. 1998 Training Schedule

As of December 11, 1997, courses for CY 1998 are tentative Please check WESTAR's web page (www westar org) for updated current information

WESTAR Council
Western Regional Air Quality Training Center
CY 1998 Training Schedule

Tentative as of January 15, 1998

The following training courses, conferences and meetings are scheduled to be offered by WESTAR during the CY 1998 The information contained in WESTAR's CY 1998 Training Schedule is tentative and subject to change, please check WESTAR's web site at WWW WESTAR ORG for up-to-date information These training courses, conferences and meetings are sponsored by WESTAR, EPA OAQPS's Education and Outreach Group, and EPA Region VIII, IX and X states. For more information please contact Jeff Gabler at (503) 220-1660 or jgabler@westar org

Training Course Schedule for CY 1998

Feb. 9 - 11th — **Permitting Processes for Stationary Sources: PSD/Permitting** — **Honolulu, Hawaii**

This workshop, sponsored by WESTAR, the State of Hawaii and EPA Region IX, is being conducted for state, regional and local air staff to provide practical information and updates on Prevention of Significant Deterioration and Permitting Discussions will include PSD Permit Review (definitions, applicability for New Sources and Modifications, significant emissions), New Source Review, and Operating Permits (introduction, applicability, permit contents, revisions and modifications)

April 1998 — **Compliance Assurance Monitoring Rule and Credible Evidence** — **Phoenix, Arizona**

The central focus of the Compliance Assurance Monitoring workshop is to examine the various aspects of the final CAM Rule promulgated October 1997 The workshop will address the CAM Rule's implementation schedule and requirements, and explore the relationship between the CAM and Credible Evidence Rules This workshop will include potential revisions or guideline changes to the regulation(s) WESTAR's Western Regional Air Quality Training Center, EPA's OAQPS EOG and the State of Arizona will sponsor this workshop

April 1998 — **Review of the Tribal Authority Rule for Regulatory Agencies** — **Phoenix, Arizona**

WESTAR's Western Regional Air Quality Training Center, in cooperation with EPA OAQPS EOG, will host this workshop to bring together federal, state and local air agency staff responsible for working with tribes as they implement the Tribal Authority Rule (TAR) through new tribal air programs This workshop facilitated by Northern Arizona University's Institute for Tribal Environmental Professionals will provide an overview of the soon-to-be-promulgated TAR The goals of the workshop are primarily to provide training for the states by informing the participants of key elements, exploring the legal structure and program requirements, discussing perspectives on tribal sovereignty issues and air program developments, and discussing working options for effective and cooperative implementation of the TAR

May 1998 — **Transportation Conformity Rule** — **Reno, Nevada**

WESTAR's Western Regional Air Quality Training Center, in cooperation with EPA OAQPS EOG, will host this workshop to bring together federal, state and local air agency staff responsible for working with the Transportation Conformity Rule This workshop will address the amendments to the Transportation Conformity Rule and include discussions on the Rule's provisions such as build/no build tests, areas not required to submit SIPs, mismatch in SIP/plan time frame, non-federal projects, and modeling requirements Potential revisions to this rule will be included in this workshop

May 1998	**Smoke Management/Prescribed Fire/Wildland Fire Policy**	**Boise, Idaho**

This workshop will bring together federal, state and local air staff The purpose of this workshop is to inform federal, state and local air agency staff on the policy and resource impacts to their respective organizations from issues associated with the FACA Wildland Fire Policy as it relates to wildland and prescribed fire impacts to the NAAQS and Regional Haze programs, and the role of the federal land managers Sponsored by WESTAR's Western Regional Air Quality Training Center and EPA's OAQPS EOG

June 2- 4th	**Stationary Source**	**Salt Lake City, Utah**

WESTAR's Western Regional Air Quality Training Center, in cooperation with EPA's OAQPS EOG, will host this workshop to bring together federal, state and local air agency staff This annual workshop will focus on updating air staff members on recent changes and new applicable federal air quality rules

Summer 1998	**PM2.5 Monitoring: Quality Assurance/Quality Control (Field and Laboratory)**	**TBA: Regions 8, 9 and 10**

The PM2 5 Monitoring workshop, sponsored by WESTAR's Western Regional Air Quality Training Center and EPA's OAQPS EOG, will be developed for state and local FRM field and laboratory technicians This workshop is intended to provide hands-on experience for staff The training will provide field technicians the opportunity to explore FRM operation, calibration, data handling and auditing, and laboratory technicians the opportunity to experience filter handling and weighing techniques Due to the scope of the workshop the number of participants will be limited

July 1998	**Meteorological Model Version 5 (MM5)**	**Seattle, Washington**

The focus of this workshop is for federal, state and local air agency staff members to gain an understanding of prognostic modeling capabilities with specific emphasis on those products generate by MM5 The workshop will provide a conceptual understanding of the physics, scales-of-motion, limitations, advantages and input options associated with MM5 The goal of this workshop is to educate participants on the potential uses of MM5 modeled meteorological fields as they relate to regulatory applications (e g , PSD, SIP and NSR) This workshop is geared toward air quality modeling personnel with extensive modeling experience This workshop is lecture-based Sponsored by WESTAR's Western Regional Air Quality Training Center and EPA's OAQPS EOG

July 1998	**Regional Strategies Centers and Regional Air Management Partnerships (RAMPs)**	**Portland, Oregon**

This session will bring together state and local air Directors and staff to review concepts of Regional Strategy Center and RAMPs Topics to be discussed include scope and direction of Strategy Centers, emission and meteorological inventory development, resource and time requirements This session is sponsored by WESTAR's Western Regional Air Quality Training Center and EPA's OAQPS EOG

August 1998	**Emissions Inventory for PM2.5 and Implications**	**Reno, Nevada**

This workshop will bring together federal, state and local air agency staff members responsible for PM2 5 planning and modeling The focus of this workshop will be to review emission inventory needs for SIP planning and modeling requirements Sponsored by WESTAR's Western Regional Air Quality Training Center and EPA's OAQPS EOG

August 1998 **Regional Haze & Visibility** **Salt Lake City, Utah**

The purpose of this workshop is to explore the revisions to the existing visibility regulations and review the impacts that these revisions will have on state and local air agencies. Topics include: initial SIP and subsequent SIP revision requirements; progress targets; emission control strategies; and stakeholder relationships. Sponsored by WESTAR's Western Regional Air Quality Training Center and EPA's OAQPS EOG, and possibly FLMs.

September 1998 **Woodstove Curtailment Program** **Portland, Oregon**

This workshop will examine the effectiveness of residential wood combustion episodic control strategies instituted to control PM10 emissions in the West and look at the applicability of these programs under the PM2.5 NAAQS revisions. WESTAR's Western Regional Air Quality Training Center and EPA's OAQPS EOG will sponsor this workshop.

October 1998 **Open-Market Trading** **Albuquerque, New Mexico**

This workshop, sponsored by WESTER's Western Regional Air Quality Training Center and EPA's OAQPS EOG, will bring together federal, state and local air staff members involved in Open-Market Trading. This course will review EPA's policy on Open-Market Trading and the impacts on state and local air agencies including OM trading requirements and accountability.

October 1998 **Basic Permitting** **Coeur d' Alene, Idaho**

This workshop offers the basic skills necessary to write preconstruction permits. The course will cover calculations of emissions and regulatory evaluations. Title V will not be covered in this course. The workshop is sponsored by WESTAR's Western Regional Air Quality Training Center and EPA's OAQPS EOG.

November 1998 **Small Business Assistance Program/Air Toxics** **Denver, Colorado**

This workshop will bring together federal, state and local air agency staff members responsible for working with Small Business Assistance Programs (SBAP)/Air Toxics. This second annual workshop will provide training and updates on new applicable federal air quality rules. This workshop will be sponsored by WESTAR's Western Regional Air Quality Training Center and EPA's OAQPS EOG.

Tentative WESTAR Workshops for CY 1998

December 1998 **New Source Review Reform/PSD** **Reno, Nevada**

This workshop, sponsored by WESTAR's Western Regional Air Quality Training Center and EPA's OAQPS EOG, will review the soon-to-be promulgated New Source Review (NSR) Reform. The goal of the workshop is to familiarize federal, state and local air agency staff on the changes to the NSR program. Execution of this workshop is reliant on promulgation of the NSR Reform program (anticipated promulgation late CY 1998).

Other WESTAR Meetings & Conferences for CY 1998

Feb. 4 - 5th	**Pollution Prevention in Permitting Pilot Project (P4 Project)**	**Seattle, Washington**

This workshop is designed to familiarize senior state permitting staff with the practice of incorporating pollution prevention and operational flexibility into Title V Permits. The workshop will include examples from successful P4 pilot projects, criteria for selecting candidate P4 sources and case study exercises This workshop is sponsored by WESTAR, and Ross & Associates

March 9 - 11th	**WESTAR's Spring Business Meeting**	**San Diego, California**

WESTAR Director's Spring Business Meeting

TBA	**Training Center Advisory Committee Meeting**	**TBA**
TBA	**Fall Technical Conference**	**TBA**
TBA	**Fall Business Meeting**	**TBA**

Evaluation

Section D

Evaluation

Table of Contents
Training Evaluation Resources

Overview of Evaluation ..... Page D1

MARAMA Workshop Evaluation ..... Page D5

This is a one-page form to evaluate the workshop as a whole, including things participants liked, suggestions for improvement.

CARB Course Evaluation ..... Page D9

This is a one-page form that is used to gather feedback on participant satisfaction.

CARB Evaluation by Trainees On-Site ..... Page D13

This is an in-depth form used in evaluating the CARB 100 series program. It includes a profile of the respondent, as well as assessment of course content, materials, and instructors.

Daily Evaluation Form-Air 211/How to Investigate and Prepare a PSD/NSR Case Page D19

This is a one-page form that was completed at the end of each day of a three-day course during the pilot test of the course. Participants were asked to rate each session from excellent to poor and to provide comments and suggestions.

In-Depth Evaluation Form-AIR 211 ..... Page D27

This in-depth form was completed by participants at the end of the training course. It was used in conjunction with the daily evaluation form.

Session Evaluation Form ..... Page D33

This in-depth form was designed to be completed at the end of the training program. It includes questions on course design and content, materials, instructors, and facilities.

National AIRS Conference ..... Page D39

This one-page form asks participants to rate each session as excellent, good, or poor, and to provide comments on the reverse side of the page.

Participant Evaluation Form-Ecological Risk and Decisionmaking Workshop ... Page D43

This form used a combination of check-off questions and open-ended questions. It was used in evaluating the pilot test of the course.

Operating Permit Program Training-Workshop I & II Evaluation ..... Page D49

This form was used in evaluating workshops presented by the Minnesota Pollution Control Agency. It includes questions designed to obtain feedback on how well the participants think they understand the material presented as well as feedback on facilitators, materials, facilities, etc.

Evaluation Form for Videoconference Training ..... Page D59

This form was used to evaluate a satellite video broadcast training program. In addition to standard questions on course content and materials, it includes questions concerning the videoconference process and effectiveness.

Observation Sheet ..... Page D65

This form was used by a participant-observer to evaluate a presentation of the CARB 100 series. The results were used in conjunction with participant feedback on the course.

Evaluation

Why Conduct Evaluations?

Training involves a considerable investment of staff time and, generally, agency funds. It is important to determine whether the training met its objectives and was effective. It is also important to determine whether additional training needs remain. Evaluation can provide the answers to these questions and can also help an agency decide which courses to select in the future, based on their past effectiveness.

Approaches to Evaluation

Evaluation of training programs can use several different approaches. These include:

- **Participant Feedback**. This feedback can ascertain whether participants found the course useful, understandable, too short or long, too difficult or easy, and other factors. However, this type of evaluation often reflects whether the participants liked the instructors, were comfortable in the room, and other "satisfaction" measures—not necessarily whether he course met their needs or was effective. This form of feedback is generally obtained through a written feedback form, designed to be easy to complete.

- **Tests or Quizzes**. Tests can be administered at the end of the course only (post-tests) to determine knowledge or skill level at the completion of the course. A better approach is to administer a pre-test before the course in addition to the post-test to enable the evaluator to determine the improvement that was due to the course. Post-test results can also indicate needs for further training.

- **Instructor Feedback**. Feedback from instructors is particularly useful when pilot testing new courses. The instructors can provide valuable insights into participant reactions as well as whether they thought the flow of their session was appropriate, the logic was solid, the content was complete, etc.—factors they could only know by actually delivering the course. This feedback can be obtained through informal discussions following each day or the entire course or through more formal interviews.

- **Participant-Observation**. For a new course, it is useful to have an evaluator sit through the course as a "participant-observer" taking notes and observing the instructor and participants. The participant-observer can see if participants are paying attention and if the instructors are speaking effectively. They can also document the actual content of the course, beyond what is contained in the instructor manual or promised in a provider catalog. This technique is also useful if your agency is considering a course for your staff, if you can observe the course as it is delivered to another agency.

- **Follow-up Interviews or Questionnaires**. Follow-up interviews and questionnaires can be used to supplement the immediate reactions to the course obtained through the methods listed above. These interviews can involve the participants as well as their

supervisors and should address whether the course provided useful information, whether items should be added to the course or emphasized, or whether items should be deleted from the course or de-emphasized. The follow-up can also obtain examples of how the training assisted the participant in improving his or her job performance.

Tips on Designing and Conducting Evaluations

The materials in this section of *Tools for Trainers* provide examples of the various types of evaluations you might conduct. The key element in designing an evaluation is defining the objectives of the evaluation — what questions should it answer or what decisions will it affect? Examples, and the implications for the design include:

- **Course improvement**. If a course is offered more than once, it is useful to obtain feedback from participants so that the course can be improved for its future delivery. To meet this objective, the evaluation should address the course content and materials that could be changed in the future, such as topics that should be added or deleted; level of the course (basic to advanced); usefulness of materials; relevance of small group exercises; and quality of visual aids. Participant feedback, participant-observation, and instructor feedback are particularly useful.

- **Selection of instructors**. Some instructors are more effective than others. Evaluation can help you select the best instructors and to provide assistance or training-of-trainers to those whose delivery skills need improvement. Participant feedback and participant-observtion are most useful.

- **Selection of courses from various alternatives**. There might be several providers who offer courses on a given topic. Evaluation can assist you in selecting the best course for your agency staff. In these cases, it is useful to establish some criteria, such as length of the course, method of delivery, and level of the course, and then to evaluate the various alternatives that meet the criteria. Participant-observation is the best approach, if you or another representative of your agency can attend the course in another location.

- **Documentation of results**. You might be asked to document the results of training — the return on the training investment. In this case, participant satisfaction is less important than changes in knowledge and skill that led to improvement in job performance. Test results are useful to provide quantitative documentation. Follow-up interviews with trainees and their supervisors are useful in providing anecdotes and examples. If the training was intended to resolve a specific problem, follow-up measurement or examination of the problem will be needed.

- **Promotion of training or specific courses**. In competing for scarce resources, you might find it necessary to promote the value of training in general or specific courses. In this case, it is most important to determine what types of information will have the most effect with the target audience. Documented results are generally effective, with some participant feedback such as quotes on course quality and usefulness. A combination of quantifiable results, such as an increase in number and proportion of successful

enforcement cases, with anecdotes that illustrate improved performance is often the most effective.

Post-tests can also be used to determine whether trainees should receive some form of credit or a certificate for the course.

Evaluation results feed back into needs assessment Areas that were not covered adequately in the course, based on trainee feedback, may constitute continuing training needs. Trainees might recognize additional training needs as a result of their participation in a related course or, as trainees improve their skills in one area, supervisors might recognize needs in another area.

It is helpful to work with the training provider on the course evaluation and to share the results. In some cases, the provider will have their own participant feedback forms that are tailored to the course and its individual sessions. The provider might also administer pre-tests and/or post-tests.

Whenever possible, your evaluation should include some form of follow-up with trainees, their supervisors, or even the regulated community. This follow-up is very useful in documenting changes in knowledge or skill that can be attributed to the training program, problems that have been overcome, and issues that have been resolved. It also provides feedback on what proved to be more useful and less useful to the trainees in their jobs. After they have had an opportunity to apply their new knowledge and/or skills, the trainees can identify strengths or weaknesses in the training that might not have been apparent during the course. Comments such as "I found that I didn't really understand this process (method, rule, etc.) as well as I thought I did" or "the course didn't address this aspect of the process (method, rule, etc.)" can identify continuing training needs and can also assist training providers in improving their courses.

MARAMA

Workshop Evaluation Form

MARAMA Workshop Evaluation

Name of Workshop_____Date_____

Your agency_____

Three things you liked best about this workshop.

1)

2)

3)

Three things needing improvement (please specify how you think we can improve them next time)·

1)

2)

3)

How will this workshop help you do your job better?

What other assistance or training from MARAMA would help you do a better job?

Please return this form to Susan Wierman before the end of the workshop. Thanks for coming. Have a safe trip home

CARB Course Evaluation

CALIFORNIA AIR RESOURCES BOARD
UNIFORM AIR QUALITY TRAINING PROGRAM
COURSE EVALUATION

LOCATION:_____ DATE:_____

COURSE TITLE:_____ INSTRUCTOR:_____

CURRENT POSITION:_____

1. Did the instructor present the material in a satisfactory manner?
   ____Yes ____No ____Somewhat
Comments:_____
_____

2. Were questions asked in class answered in a satisfactory manner?
   ____Yes ____No ____Somewhat
Comments:_____
_____

3. Were the handouts and learning aids of value to the presentation?
   ____Yes ____No ____Somewhat
Comments:_____
_____

4. Did the course meet your expectations?
   ____Yes ____No ____Somewhat
Comments:_____
_____

5. Was the presentation relevant to your job?
   ____Yes ____No ____Somewhat
Comments:_____
_____

6. Other Comments?_____
_____
_____

CARB Evaluation by Trainees On-Site

CALIFORNIA AIR RESOURCES BOARD
NATIONAL AIR COMPLIANCE TRAINING DELIVERY PROJECT
UNIFORM AIR QUALITY TRAINING PROGRAM
100 LEVEL COURSES

EVALUATION BY TRAINEES ON-SITE

SURVEY PROFILE

In order to make future training more effective, it is necessary to understand the needs of participants. To that end, please provide the following information:

1. Your affiliation:

   _____ Federal agency

   _____ State agency

   _____ Local agency

   _____ Other (please specify) _____
   _____

2. Your profession/position/title: _____
   _____

3. Approximate number of years in this type of position: _____

4. Brief description of your responsibilities/interests:
   _____
   _____
   _____
   _____

5. Are the courses appropriately designed for someone with your background?
   too advanced 1 2 3 4 5 too elementary

5a. Why or why not?
   _____
   _____
   _____
   _____

6. Were the course objectives clearly stated for each course? yes no

7. If they were stated, were they met? yes no

8. If they were not met, which ones were not?

_____

_____

_____

_____

9. Was the amount of time allotted each course appropriate? yes no

10. Was the time allowed for questions/discussions adequate? yes no

11. Were the topics/materials well organized? yes no

_____

_____

_____

COURSE CONTENT

12. Perceived applicability of course to current work
right on target 1 2 3 4 5 missed the mark

13. Perceived usefulness of course to current work
critical 1 2 3 4 5 not useful

14. Did you find the courses to be stimulating?
fascinating 1 2 3 4 5 deadly!

15. How challenging are the courses?
too challenging 1 2 3 4 5 not challenging at all

16. Did examinations reflect course content? yes no

COURSE MATERIALS

17. How would you rate the videos and/or slides?
clarified topics and ideas 1 2 3 4 5 confusing or unclear

18. How would you rate the quality of the printed material?
useful 1 2 3 4 5 worthless

19. How would you rate the quantity of the printed material?
too much just right inadequate

20. Was the distribution of printed materials timely and relevant?
too early just in time too late

21. How was the reproduction quality of the handouts?
readable 1 2 3 4 5 unreadable

22. Was there sufficient opportunity for interaction/ discussion? yes no

23. Were the instructors' presentations well coordinated? yes no

24. Were the training materials consistent? yes no

25. Were the instructors able to hold your attention?
always sometimes rarely

26. Were the instructors knowledgeable about their subjects?
very knowledgeable knowledgeable limited knowledge

27. Were the instructors sufficiently experienced in their subject areas?
very experienced experienced limited experience

28. Were the instructors well prepared for their sessions?
always usually seldom

29. Were the instructors able to answer your questions satisfactorily?
always usually seldom

30. Were the instructors readily understood?
always usually seldom

31. Did the instructors begin and end on time?
always usually seldom

32. Was the training site setting (e.g., room size, temperature, brightness) suitable? yes no

33 Was the audio/visual reception satisfactory? yes no

34. How did these courses compare to all others that you have taken?
one of the best 1 2 3 4 5 one of the worst

35. Did the courses meet your expectations? yes no

35a. If not, why not?

_____

_____

_____

36. Were the courses efficiently managed?
well managed 1 2 3 4 5 needs improvement

37. Which courses were especially beneficial and why?

_____

_____

38. Which courses were least beneficial and why?

_____

_____

39. How would you improve on any of the courses?

_____

_____

Please use the bottom of this page for any additional comments.
Please include any comments about this form as well.

Thank you for taking the time to complete this form. We hope you enjoyed this course.

Daily Evaluation Form
Air 211-How to Investigate and Prepare a PSD/NSR Case

DAILY EVALUATION FORM
AIR 211 - PRACTITIONERS WORKSHOP FOR THE EPA REGIONS
HOW TO INVESTIGATE AND PREPARE A PSD/NSR CASE
DAY 1

Please rate the sessions offered today from 5 (Excellent, Very Valuable) to 1 (Poor, Not at All Valuable). Please explain any ratings of "1" so we can learn from your comments. Other comments are also encouraged.

Welcome/Course Logistics	5	4	3	2	1
Introduction					
Opening Remarks	5	4	3	2	1
Importance of PSD/NSR Enforcement	5	4	3	2	1
Background on PSD/NSR	5	4	3	2	1

Comments/Suggestions_____

_____

_____

Choosing the Facility to Investigate					
The Need for Targeting in PSD/NSR Cases	5	4	3	2	1
Targeting Particular Industry Sectors	5	4	3	2	1
Targeting Particular Facilities	5	4	3	2	1
Targeting Exercise	5	4	3	2	1

Comments/Suggestions_____

_____

_____

Collecting Evidence					
Documentary Evidence from Sources other than Facility	5	4	3	2	1
Inspection of the Facility	5	4	3	2	1
Use of 114 Information Requests	5	4	3	2	1

Comments/Suggestions_____

_____

_____

Name (Optional)_____

DAILY EVALUATION FORM
AIR 211 - PRACTITIONERS WORKSHOP FOR THE EPA REGIONS
HOW TO INVESTIGATE AND PREPARE A PSD/NSR CASE
DAY 2

Please rate the sessions offered today from 5 (Excellent, Very Valuable) to 1 (Poor, Not at All Valuable). Please explain any ratings of "1" so we can learn from your comments. Other comments are also encouraged.

Review and Analysis of Evidence

Overview	5	4	3	2	1
How to Review a Permit for Potential Violations	5	4	3	2	1
Overview of Netting and Key Terms	5	4	3	2	1
Examples of Netting Calculations and Issues Raised	5	4	3	2	1
Overview of Emissions Data and Data Issues	5	4	3	2	1
Debottlenecking	5	4	3	2	1
Breakout Groups on Netting and Debottlenecking	5	4	3	2	1
Impact Analysis	5	4	3	2	1
Federal Enforceability	5	4	3	2	1

Comments/Suggestions_____

_____

_____

_____

_____

_____

_____

Name (Optional)_____

DAILY EVALUATION FORM
AIR 211 - PRACTITIONERS WORKSHOP FOR THE EPA REGIONS
HOW TO INVESTIGATE AND PREPARE A PSD/NSR CASE
DAY 3

Please rate the sessions offered today from 5 (Excellent, Very Valuable) to 1 (Poor, Not at All Valuable). Please explain any ratings of "1" so we can learn from your comments. Other comments are also encouraged.

Turning Evidence into a Judicial Case

Notice of Violation/Stop Work Orders	5	4	3	2	1
Use of Pleadings and Discovery to Prove your Case	5	4	3	2	1
Potential Issues Raised in Litigation	5	4	3	2	1
Expert Testimony	5	4	3	2	1
Settlement of the Case	5	4	3	2	1

Comments/Suggestions_____

_____

_____

_____

_____

_____

Case Studies 5 4 3 2 1

Comments/Suggestions_____

_____

_____

Name (Optional)_____

In-Depth Evaluation Form
Air 211

IN-DEPTH EVALUATION FORM
AIR 211 - PRACTITIONERS WORKSHOP FOR THE EPA REGIONS
HOW TO INVESTIGATE AND PREPARE A PSD/NSR CASE

In the questions that follow, please circle the number that best describes your opinion or the words "yes" or "no". Use the last page of the form to continue your comments or for overall comments.

1. Overall, was the course content useful and applicable to your current work?

   [right on target] 5 4 3 2 1 [missed the mark]

   _____

   _____

2. Was the material appropriate for your background?

   [too advanced] 5 4 3 2 1 [too elementary]

   _____

   _____

3, Was the length of the course appropriate?

   [too long] 5 4 3 2 1 [too short]

   _____

   _____

4 Was the amount of time allowed for questions and answers adequate?

   [too much time] 5 4 3 2 1 [not enough time]

   _____

   _____

5 Were the exercises useful ? Yes No (please explain)

   _____

   _____

   _____

6 Should any topics be deleted from the course? Yes (please explain) No

7 Should any topics be added to the course? Yes (please explain) No

8. Do you think the Participant Resource Notebook will be useful? Yes No (please explain)

9. Do you have any suggestions for improving the Participant Resource Notebook?

10. How would you rate the instructors in the course?

[Very knowledgeable] 5 4 3 2 1 [Not knowledgeable]

11 How would you rate the training facility?

[Excellent] 5 4 3 2 1 [Poor]

12. What were the best elements of the course?

13. What improvements do you suggest?

13. Other comments?

Name (Optional)_____

THANK YOU - YOUR FEEDBACK WILL BE VERY HELPFUL IN REVISING THE COURSE.

Session Evaluation Form

DRAFT

SESSION EVALUATION FORM: Session _____

Participant Profile

1. Affiliation:
   ____ Federal Agency
   ____ State Agency
   ____ Local Agency
   ____ Other_____

2. Position/Title:
   ____ Inspector
   ____
   ____
   ____ Other_____

3. Years in this type of position: ____

In the following questions, circle the number of your response and place comments on the lines provided. If additional space is needed, use the last page.

Session Design and Content

4. Was the material useful and applicable to your current work?

   [Right on target] 1 2 3 4 5 [Missed the mark]

   _____

   _____

5. Was the material appropriate for your background?

   [Too advanced] 1 2 3 4 5 [Too elementary]

   _____

   _____

6. Was the amount of time alloted for this session appropriate?

   Yes No, time was insufficient No, too much time alloted

   _____

   _____

7. Was the amount of time allowed for questions and discussion adequate?

Yes No, time was insufficient No, too much time allowed

8. Should any material or topics be deleted from this session? Yes No

9. Should any material, information, or topics be added to this session? Yes No

Session Materials

10. How would you rate the videos, films, slides, or other audiovisual aids in this session?

[Excellent] 1 2 3 4 5 [Poor]

11. How would you rate the quality of the printed material provided for this session?

[Excellent] 1 2 3 4 5 [Poor]

12. How would you rate the quantity of the printed material provided for this session?

Too much Just the right amount Too little

13. Were the exercises practical and useful?

[Very useful] 1 2 3 4 5 [Not at all useful]

_____

_____

Session Instructors

13. Did the instructors have the necessary knowledge and experience for this session?

Yes To some extent No

_____

_____

14. Were the instructors able to convey the material for this session effectively?

Yes To some extent No

_____

_____

Facilities

15. Was the training facility suitable and comfortable?

Yes No

_____

_____

Additional Comments

_____

_____

_____

_____

_____

_____

National AIRS Conference Form

National AIRS Conference

November 16-20, 1992

Facility Subsystem Conference Evaluation Form

This evaluation is designed to enable EPA Headquarters personnel to judge the effectiveness of the National AIRS Conference. Please indicate your opinion by checking the appropriate block and return this form to the conference registration office.

General Session Evaluation

	EXCELLENT	GOOD	POOR
KEYNOTE ADDRESS			
AIRS GRAPHICS			
AIRS - SEDM CONNECTION			
DATA:THE GOOD, THE BAD & THE UGLY			

Facility Session

OVERVIEW			
SEMINAR/WORKSHOP:"ACTION LINKING"			
ACCOMPLISHMENTS			
CHALLENGES			
PERMITS & RELATED TITLE 7 ACTIVITIES			
PC/MAINFRAME RELATIONSHIP			
DATA INTERGRATION MERGING			
COMPLIANCE AND SIP EI TOPICS			
SPECIAL STATE/LOCAL RO PRESENTATIONS			
USER FRIENDLINESS PANEL DISCUSSION			
AFS & AMS SUCCESS STORIES			

PLEASE ADD YOUR COMMENT ABOUT THE CONFERENCE ON THE REVERSE SIDE.

Participant Evaluation Form
Ecological Risk and Decisionmaking Workshop

Ecological Risk and Decision Making Workshop
Participant Evaluation Form

Name (optional) _____

Office _____

Title _____

Please mark the appropriate box

Overall

How would you rate the overall workshop? ☐ Excellent ☐ Good ☐ Fair ☐ Poor

Workshop Sessions

How would you rate the six main units?

Introduction	☐ Excellent ☐ Good ☐ Fair ☐ Poor
Ecology and Ecological Effects	☐ Excellent ☐ Good ☐ Fair ☐ Poor
Framework for Ecological Risk Assessment	☐ Excellent ☐ Good ☐ Fair ☐ Poor
Communicating with the Public on Ecological Issues	☐ Excellent ☐ Good ☐ Fair ☐ Poor
Ecological Risk Management and Decision Making	☐ Excellent ☐ Good ☐ Fair ☐ Poor
Workshop Summary	☐ Excellent ☐ Good ☐ Fair ☐ Poor

Comments _____

_____

_____

_____

Group Exercises

In which group exercise did you participate? _____

What is your opinion of the group exercise in which you participated? (How informative/educational was it?) Use the space below for comments

Background	☐ Excellent ☐ Good ☐ Fair ☐ Poor
Problem Formulation	☐ Excellent ☐ Good ☐ Fair ☐ Poor
Analysis	☐ Excellent ☐ Good ☐ Fair ☐ Poor
Risk Characterization	☐ Excellent ☐ Good ☐ Fair ☐ Poor
Decision Making	☐ Excellent ☐ Good ☐ Fair ☐ Poor

Comments _____

_____

_____

_____

Please rate the following

Visual Aids	☐ Excellent	☐ Good	☐ Fair	☐ Poor
Workshop Manual	☐ Excellent	☐ Good	☐ Fair	☐ Poor

Which aspects of the workshop were most beneficial and why? _____

Were any parts of the course or course materials confusing or difficult to understand? _____

After participating in this workshop, do you feel you have a better understanding of ecological risk assessment and the decision making process? ☐ Yes ☐ No

Do you have any suggestions on how information could be presented more effectively?

Are there aspects of the workshop that you think need more/less emphasis?

Did the workshop meet your expectations? ☐ Yes ☐ No

Please provide any other comments or suggestions in the space below

Thank you for your assistance!

Operating Permit Program Training Workshop I and II Evaluation

Operating Permit Program Training

WORKSHOP I EVALUATION

Directions: Please complete the form below to let us know what you liked and what you would like to see improved in Operating Permit Program Training, Workshop I. We will do our best to incorporate changes into future workshops. Thank you for your cooperation.

Please circle your answer	**Strongly Disagree**		**Agree**		**Strongly Agree**

1. As a result of this Workshop, I can now apply the necessary skills to effectively:

a. understand the new Air Quality Operating Permit Program as administered by MPCA

1 2 3 4 5

b. identify pollutants regulated by the CAAA and State Air Quality Rules

1 2 3 4 5

c. identify my responsibilities as an air quality permit applicant.

1 2 3 4 5

d. understand the basic flow of the permit application:

- describe my facility 1 2 3 4 5
- locate and describe emission units 1 2 3 4 5
- determine potential to emit 1 2 3 4 5
- identify the best type of permit for my facility. 1 2 3 4 5

e. identify additional resources for completing my permit application.

1 2 3 4 5

g. understand the complaint system

1 2 3 4 5

Comments:

	Strongly Disagree		Agree		Strongly Agree

2. There was agreement between the announced Workshop I objectives and what was presented.

1 2 3 4 5

3. How do you rate the facilitators' performance?

a. The facilitators were knowledgeable about contents of the modules

1 2 3 4 5

b. The facilitators' presentations were well organized

1 2 3 4 5

c. The facilitators were approachable and responsive.

1 2 3 4 5

Comments:

4. How do you rate the balance of facilitator's remarks, presentation materials, classroom tools and handouts?

a. Good balance 1 2 3 4 5

b. sufficient facilitator remarks 1 2 3 4 5

c. adequate reading materials 1 2 3 4 5

d. appropriate and enough examples 1 2 3 4 5

e. appropriate tools for classroom discussion. 1 2 3 4 5

Comments:

6. What was your reaction to the workshop? Please circle your answer.

Excellent	Very Good	Good	Fair	Poor
1	2	3	4	5

Please explain your reaction:

6. How do you feel about the pacing of the program?

a. Too fast
b. Appropriate
c. Too slow

7. What are your on-going training needs? In what way did the program meet or not meet your need? Please explain your answer.

8. How could Air Quality Division best meet your need? Please explain your possible need for additional activities and specific training topics:

9. What did you enjoy most about this workshop?

10. What did you like least about this workshop?

11. How can Workshop I be improved?

12. Please add any additional comments that will help us to improve our future workshops (e.g. additional activities, specific training topics, geographical region preferences, cost of workshop, and size of class)

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Operating Permit Program Training

WORKSHOP II EVALUATION

Directions: Please complete the form below to let us know what you liked and what you would like to see improved in Operating Permit Program Training, Workshop II. We will do our best to incorporate changes into future workshops. Thank you for your cooperation.

Please circle your answer	**Strongly agree**		**Agree**		**Strongly disagree**

1. As a result of Workshop II, I can now apply the necessary skills to effectively:

a. identify the basic flow of the permit application from application submittal through permit issuance.

1 2 3 4 5

b. identify the twelve steps in filling out a permit application.

1 2 3 4 5

c. identify the requirements an air emission source may be subject to.

1 2 3 4 5

d. complete the GI-09 "Requirements" form for my facility.

1 2 3 4 5

e. keep track of development of new state rules and federal regulations

1 2 3 4 5

f. identify compliance requirements within each phase of the permitting process

1 2 3 4 5

g. identify the criteria for determining compliance status at the time of applying for an air emissions permit

1 2 3 4 5

h. understand the process of certifying and submitting my "complete" application

1 2 3 4 5

i. describe the process that MPCA uses to make enforcement decisions

1 2 3 4 5

	Strongly agree		Agree		Strongly disagree
j. describe the concept of permit shield.	1	2	3	4	5
k. define categories of modification; explain the difference between a modification and an amendment.	1	2	3	4	5
l. describe the emission calculations necessary for a modification.	1	2	3	4	5
m. identify the different sections of an air emission permit, and locate various requirements within a permit.	1	2	3	4	5

omments:

I now feel qualified to complete a permit application.

1 2 3 4 5

3. There was agreement between the announced Workshop II objectives and what was presented.

1 2 3 4 5

4. How do you rate the facilitators performance?

a. The facilitators were knowledgeable about contents of the modules

1 2 3 4 5

b. The facilitators' presentations were well organized

1 2 3 4 5

c. The facilitators were approachable and responsive

1 2 3 4 5

Comments:

	Strongly agree				Strongly disagree
5. How do you rate the balance of facilitator remarks, presentation materials, classroom tools and handouts?					
a. Good balance	1	2	3	4	5
b. Sufficient facilitator remarks	1	2	3	4	5
c. Adequate reading materials	1	2	3	4	5
d. Appropriate tools for classroom discussion	1	2	3	4	5
e. Appropriate and sufficient examples	1	2	3	4	5

Comments:

6. What was your reaction to the workshop? Please circle your answer.

Excellent	Very Good	Good	Fair	Poor
1	2	3	4	5

Please explain your reaction

7. How do you feel about the pacing of the program?

a Too fast
b Appropriate
c. Too slow

8. What are your on-going training needs? In what way did the program meet or not meet your need? Please explain your answer.

9. How could Air Quality Division best meet your needs? Please explain your possible need for additional activities and specific training topics:

10. What did you enjoy most about this workshop?

11. What did you like least about this workshop?

12. How can Workshop II be improved?

13. Please add any additional comments that will help us to improve our future workshops. (e.g. additional activities, specific training topics, geographical region preferences, cost of workshop, and size of class)

Evaluation Form for Videoconference Training

Evaluation Form for Videoconference Training

I. OVERALL RATING

1. Overall, I think this course was:
   a. excellent
   b. very good
   c. good
   d. fair
   e. poor

2. Were the overall objectives of the course met?
   a. yes
   b. no
   c. more than expected
   d. less than expected

3. The amount of time allotted for course was:
   a. sufficient
   b. too long
   c. too short

II. TECHNICAL CONTENT

1. Course content was:
   a. beneficial for improving current inspection techniques
   b. too general to apply to specific job requirements
   c. too complex
   d. not applicable

2. Course content was presented in an interesting manner.
   a. agree
   b. disagree
   c. no opinion

3. Panel members were quite knowledgeable about their subject areas.
   a. agree
   b. disagree
   c. no opinion

III. INSTRUCTIONAL MATERIALS

1. Were the handouts appropriate for the course content?
   a. yes
   b. no
   c. more than I expected
   d. less than I expected

2. Were the handouts helpful in understanding the presentation of the workshop?
   a. yes
   b. no
   c. no opinion

3. The audio-visual materials (i.e., slides, view graphs) aided my understanding of the topics presented.
   a. agree
   b. disagree
   c. no opinion

IV. VIDEOCONFERENCE EVALUATION

1. Was the video presentation clear and easy to view?
   a. yes
   b. no
   c. no opinion

2. Were you able to hear the instructor?
   a. yes
   b. no
   c. no opinion

3. Did the telephone interaction by the viewing audience contribute to the program?
   a. excellent
   b. good
   c. fair
   d. poor

4. Was the onsite coordinator helpful?
   a. yes
   b. no
   c. no opinion

5. How would you rate the audience's ability to get their questions answered using videoconference training?
   a. excellent
   b. good
   c. fair
   d. poor

6. Was the time allotted for questions sufficient?
   a. yes
   b. no
   c. no opinion

7. Rate how the overall objective of the course was met using video-conference training?
   a. excellent
   b. good
   c. fair
   d. poor

8. Classroom environment and facilities were:
   a. excellent
   b. good
   c. fair
   d. poor

V. GENERAL COMMENTS

1. I consider the most needed improvements in the course are:

_____

_____

_____

_____

2. The "best" parts of this course were:

_____

_____

_____

_____

3. Additional comments:

_____

_____

_____

_____

Observation Sheet

Observer:_____

OBSERVATION SHEET

Session Name:_____

Time/Date:_____

Instructor(s):_____

1. Approximately how much time was devoted to each of the following (record actual times, e.g., 2:00-2:30, or estimate total time for each category):

   Lecture_____

   Questions and Answers_____

   Video_____

   Exercises_____

   Break, Other_____

2. Did the instructor(s)

	Yes	Somewhat	No
Know the subject matter	____	____	____
Speak clearly	____	____	____
Use visual aids well	____	____	____
Answer questions well	____	____	____
Use good, relevant examples/stories	____	____	____

   Comments_____

   _____

   _____

3. Did the participants

	Yes	Somewhat	No
Listen attentively	____	____	____
Lose interest at times, seem bored	____	____	____
Ask questions that indicated interest	____	____	____
Ask questions that indicated they were lost	____	____	____
Participate enthusiastically in exercises	____	____	____

   Comments_____

   _____

   _____

4. Content

	Yes	Somewhat	No
Did the material seem too easy?	___	___	___
Did the material seem too difficult?	___	___	___
Was the material complete>	___	___	___
Was the "state twist" adequate	___	___	___
Was the material too "California-oriented"?	___	___	___

Note as many examples of "state twist" as possible_____

_____

_____

_____

_____

Note material that seemed too "California-oriented"_____

_____

_____

_____

General Comments

_____

_____

_____

_____

_____

_____