

**NATIONAL AIR QUALITY
TRAINING PROJECT**

**PROFESSIONAL DEVELOPMENT
TRAINING GUIDE**

PUBLIC AND PRIVATE COURSES

MARCH 2012

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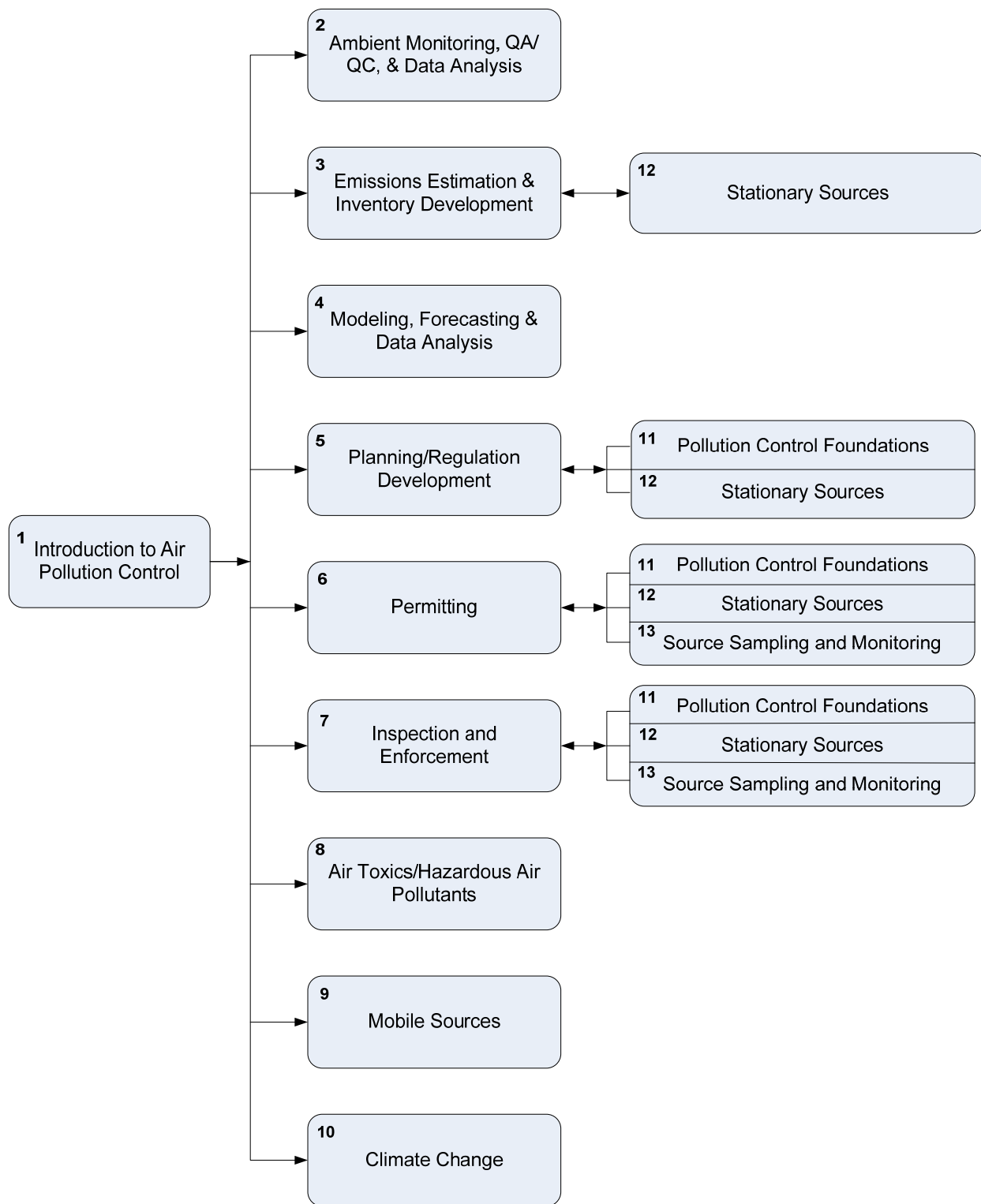
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INTRODUCTION AND PURPOSE

During the development of the National Air Quality Professional Training Guide, the training development committee researched sources outside of EPA and tried to identify the potential for gap filling for areas where there was limited information.

The assessment included potential courses offered by trade associations (such as the Air & Waste Management Association and Greenhouse Gas Management Institute), programs within EPA (outside of Air Pollution Training Institute (APTI)) or other governmental agencies (such as the EPA's New Source Review section and Federal Highway Administration), and additional private providers with recognized professional education programs focuses on air quality (such as Trinity Consultants, RTP Environmental Associates, Lakes Environmental, and others).

This document list the courses provided by companies, agencies etc., other than EPA/APTI and CARB. The courses have been classified under the same ten (10) functions as used in the training guide for EPA and CARB courses. Please note that Section 11 lists courses by provider, with some extra courses listed within this section.



Training and Development Flowchart

DEFINITIONS

Introduction to Air Pollution Control	These courses are designed for regulatory personnel who are new or will be beginning their career in the air quality regulatory field.
Pollution Control Foundations	These courses present fundamental information on the formation and control of various air pollutants.
Ambient Monitoring, QA/QC, & Data Analysis	These courses are designed for individuals within a regulatory agency whose role is to provide sampling and laboratory analysis of ambient air samples. Course topics also include quality assurance/quality control and analysis of ambient air quality data.
Emissions Estimation & Inventory Development	These courses are designed for regulatory personnel who have or will have the responsibility to develop emissions inventories.
Modeling, Forecasting, & Data Analysis	These courses are designed for individuals who will be using or interpreting the results of air quality models.
Planning / Regulation Development	These courses are designed for individuals who will be preparing State Implementation Plans or regulatory language.
Permitting	These courses are designed for personnel of state and local permitting agencies who must review and interpret permit applications and prepare permits. There are also relevant courses listed under pollution control foundations, stationary sources, and source sampling and monitoring depending on the individual assignments.
Inspection & Enforcement	These courses are designed for inspectors who determine compliance with air pollution control requirements in permits, regulations, and orders. There are also relevant courses listed under pollution control foundations, stationary sources, and source sampling and monitoring depending on the individual assignments.
Air Toxics / Hazardous Air Pollutants	These courses are designed for individuals who implement programs designed to reduce emissions of toxic or hazardous air pollutants. There are also relevant courses listed under other topics depending on the individual assignments.
Stationary Sources	These courses provide information primarily for regulatory personnel in permits, compliance/enforcement, or planning programs.
Source Sampling and Monitoring	These courses are designed for regulatory personnel who have or will have the responsibility to evaluate source test methods, approve test protocols, and review source test results as required under various federal and state regulations. In addition, these courses are designed for regulatory personnel who have the responsibility to establish requirements in permits or regulatory language for continuous emissions monitoring or compliance assurance monitoring or to evaluate data provided in response to such requirements.
Mobile Sources	These courses are designed for individuals who implement programs designed to reduce emissions from mobile sources, both on-road and off-road.
Climate Change	These courses present information on greenhouse gas emissions estimation and control and fundamental scientific information about climate change.

1. INTRODUCTION TO AIR POLLUTION CONTROL

No additional introductory courses were identified.

2. AMBIENT MONITORING, QA/QC, & DATA ANALYSIS

Below are additional courses that are available from the public and private venues that may be available to provide additional training for staff.

- Data Validation Workshop – **developed for LADCO by Sonoco Technology**
- Ambient Air Monitoring For Criteria and Hazardous Air Pollutants (HAPs) (Course #401) – **Enviro Tech Solutions /William Winberry**
- Instrumental Methods Used for Sampling and Analysis of Ambient Air Particulate Matter (PM-2.5 μ) (Course #436) - **Enviro Tech Solutions /William Winberry**
- Quality Assurance/Quality Control (QA/QC) for Ambient Air Monitoring Systems and Networks (Course #470) - **Enviro Tech Solutions /William Winberry**

3. EMISSIONS ESTIMATION & INVENTORY DEVELOPMENT TRAINING CURRICULUM

Below are additional courses that are available from the public and private venues that may be available to provide additional training for staff.

- Emission Calculations and Data Reduction – **Trinity Consultants/MARAMA**
- MOVES 2010a 2-Day Training – **Federal Highway Administration Resource Center**
- Emissions Calculations – **Doyle Engineering Inc.**
- EPA Emissions Inventory Conference

4. MODELING, FORECASTING, AND DATA ANALYSIS

Below are additional courses that are available from the public and private venues that may be available to provide additional training for staff.

- Fundamentals of Air Dispersion Modeling – **Trinity Consultants**
- AERMOD Modeling Computer Laboratory - **Trinity Consultants**
- Practical Air Dispersion Modeling Workshop - **Trinity Consultants**
- Transportation Air Quality Dispersion Modeling Workshop– **Federal Highway Administration Resources Center**
- COMMUTER Model Workshop – **Federal Highway Administration Resources Center**
- AERMOD Training – **Lakes Environmental Software**
- CALPUFF Training- **Lakes Environmental Software**

5. PLANNING/ REGULATION DEVELOPMENT

Below are additional courses that are available from the public and private venues that may be available to provide additional training for staff.

- OECA Regulatory Development Training Course NETI MLS 902
- Risk Communication Course - Alvin Chun and Arnold Den - **US EPA National Center for Risk Communication and Public Improvement**

6. PERMITTING

Below are additional courses that are available from the public and private venues that may be available to provide additional training for staff.

- Fundamentals of NSR/PSD Permitting [EMGM-382] - **AWMA**
- Risk Management Planning: A Technical Review [EMGM-177] - **AWMA**
- Introduction to Visibility Concepts [AIR-255] - **AWMA**
- Overview of Ozone Depleting Substance Regulations [AIR 141] - **AWMA**
- New Source Review (NSR) - **RTP Environmental**
- Advanced NSR -**RTP Environmental**
- Effective Permit Writing) - **RTP Environmental**
- New Source Performance Standards (NSPS)) - **RTP Environmental**
- National Emission Standards for Hazardous Air Pollutants (NESHAP)) - **RTP Environmental**
- Negotiating Permit Conditions (NSR and Title V)) - **RTP Environmental**
- Risk Management Planning (RMP) - **RTP Environmental**
- BACT Determination Workshop - **RTP Environmental**
- NSR/PSD Workshop - **Trinity Consultants**
- Managing Greenhouse Gas Emissions- **Trinity Consultants**
- Understanding RMP and PSM Requirements- **Trinity Consultants**
- Managing Title V Permits- **Trinity Consultants**
- NSR for Carbon Dioxide and Other Greenhouse Gases- **Trinity Consultants**
- Compliance Workshop for Ozone Depleting Substances- **Trinity Consultants**

7. INSPECTION & ENFORCEMENT

Below are additional courses that are available from the public and private venues that may be available to provide additional training for staff.

- AIR-255 Introduction to Visibility Concepts - **AWMA**
- Combustion Source Inspection – **Doyle Engineering**
- Fundamentals of NSR/PSD Permitting [EMGM-382] - **AWMA**
- NSR and Advanced NSR – **RTP Environmental**
- NSR/PSD Workshop – **Trinity Consultants**
- Risk Management Planning - **RTP Environmental**
- Risk Management Planning: A Technical Review EMGM-177: **AWMA**
- Introduction to Visibility Concepts AIR-255: **AWMA**
- Overview of Ozone Depleting Substance Regulations AIR 141-- **AWMA**
- Compliance Workshop for Ozone Depleting Substances – **Trinity Consultants**

8. AIR TOXICS / HAZARDOUS AIR POLLUTANTS

Below are additional courses that are available from the public and private venues that may be available to provide additional training for staff.

- Risk Communication Course - Alvin Chun and Arnold Den - **US EPA National Center for Risk Communication and Public Improvement**
- EMGM-177: Risk Management Planning: A Technical Review - **AWMA**
- AIR-141: Overview of Ozone Depleting Substance Regulations -**AWMA**
- Risk Management Program -**RTP Environmental**
- RMP and PSM – **Trinity Consultants**

9. MOBILE SOURCES

Below are additional courses that are available from the public and private venues that may be available to provide additional training for staff.

- Mobile Source Emission Factor Modeling -**FHWA**
- Air Quality Fundamentals -**FHWA**
- MOVES 2011 Training -**FHWA**
- What is Transportation Conformity -**FHWA**
<https://connectdot.connectsolutions.com/whatisconformity/>
- State and Metropolitan Transportation Planning -Rutgers National Transit Institute -
<http://ntionline.com/courses/courseinfo.php?id=218>
- Implications of Air Quality Planning for Transportation -**FHWA**
- The Congestion Mitigation and Air Quality (CMAQ) Program: Policy Overview -**FHWA**
- Air Quality Benefit Estimation Methodologies for Transportation Control Measures (TCM) Projects -**FHWA**
- Project Level Mobile Source Air Toxics (MSAT) Workshop -**FHWA**
- COMMUTER Model Workshop -**FHWA**
- An Introduction to My SQL for MOVES Model Users-**FHWA**
<http://www.fhwa.dot.gov/resourcecenter/teams/airquality/mysqlwebinar.cfm>

CARB offers mobile source control classes in California that would be useful to states that have adopted California standards.

10. CLIMATE CHANGE

Below are additional courses that are available from the public and private venues that may be available to provide additional training for staff.

- Introduction to Climate Change - **Greenhouse Gas Management Institute**
- Managing Greenhouse Gas Emissions - **Trinity Consultants**
- Basics of Organizational GHG Accounting - **Greenhouse Gas Management Institute**
- Greenhouse Gases and Climate Change 101 – **Doyle Engineering**
- Fundamentals of Organizational GHG Accounting - **Trinity Consultants**
- Using Life Cycle Analysis to Reduce Environmental Footprint - **Trinity Consultants**

11. PRIVATE AND PUBLIC PROVIDERS

RTP Environmental

<http://www.rtpenv.com/services.html>

- New Source Review (NSR)
- Advanced NSR
- Effective Permit Writing
- New Source Performance Standards (NSPS)
- National Emission Standards for Hazardous Air Pollutants (NESHAP)
- Negotiating Permit Conditions (NSR and Title V)
- Risk Management Planning (RMP)
- BACT Determination Workshop

Trinity Consultants

<http://www.trinityconsultants.com/Training/>

- NSR/PSD Workshop
- Managing Greenhouse Gas Emissions
- Fundamentals of Organizational GHG Accounting
- Using Life Cycle Analysis to Reduce Environmental Footprint
- Introduction to Air Quality Regulations
- Understanding RMP and PSM Requirements
- Managing Title V Permits
- NSR for Carbon Dioxide and Other Greenhouse Gases
- Compliance Workshop for Ozone Depleting Substances
- Fundamentals of Air Dispersion Modeling
- AERMOD Modeling Computer Laboratory
- Practical Air Dispersion Modeling Workshop
- Industry Specific Courses – See website
- State Specific Permitting Courses – See website
- Emissions Calculations and Data Reduction – Trinity and MARAMA

Federal Highway Administration Resource Center

<http://www.fhwa.dot.gov/resourcecenter/teams/airquality/courses.cfm>

- [The Congestion Mitigation and Air Quality \(CMAQ\) Program: Policy Overview \(Webinare\)](#)
- [Air Quality Benefit Estimation Methodologies for TCM Projects](#)
- [Air Quality Fundamentals \(AQ 101\)](#)
- [MOBILE6.2 Webinar](#)
- [Project-Level Mobile Source Air Toxics \(MSAT\) Workshop](#)
- [MOVES2010a 2-Day Training](#)
- [Transportation Air Quality Dispersion Modeling Workshop](#)
- [COMMUTER Model Workshop](#)
- [Transportation Conformity 101](#)

Lakes Environmental Software

<http://www.weblakes.com/training/index.html>

- AERMOD
- CALPUFF

Doyle Engineering Inc. / Brian W. Doyle

<http://www.briandoylephd.com/>

- Combustion Source Inspection
- Emissions Calculations
- CAM and Title V Monitoring
- Greenhouse Gases and Climate Change 101

EnviroTech Solutions / William T. “Jerry” Winberry, Jr.

- Inspection Techniques for Monitoring Fugitive Volatile Organic Compounds (VOCs) Emissions from Industrial Sources Utilizing Federal Reference Method 21 (Course #380)
- Ambient Air Monitoring For Criteria and Hazardous Air Pollutants (HAPs)(Course #401)
- Instrumental Methods Used for Sampling and Analysis of Ambient Air Particulate Matter (PM-2.5 μ) (Course #436)
- Safety and the Agency Inspector (Course #446)
- Stack Sampling for Hazardous Air Pollutants (HAPs) and Radionuclides (Course #450/451)
- Stack Testing/Source Test Observations for Mercury Emissions Workshop (Course #469)
- Quality Assurance/Quality Control (QA/QC) for Ambient Air Monitoring Systems and Networks (Course #470)
- Instrumentation for Source Continuous Emission Monitoring (CEM) For Criteria Pollutants and Hazardous Air Pollutants (HAPs) and Radionuclides (Course #474)
- Quality Assurance /Quality Control (QA/QC) for Stack Continuous Emission Monitors (CEMs) Systems (Course #476)
- Inspection and Monitoring of Landfill Gas Emissions for Agency Inspectors (Course #491)

Alvin Chun and Arnold Den - US EPA National Center for Risk Communication and Public Involvement

- Risk Communication Class

Sonoco Technology

- Data Validation Workshop

Greenhouse Gas Management Institute

<http://ghginstitute.org/>

- 101 Introduction to Climate Change
- 102 Introduction to Carbon Markets
- 201 Basics of Organizational GHG Accounting
- 202 Basics of Project-Level GHG Accounting
- 211 GHG Information Management Systems
- 251 Corporate Climate Change Risk Disclosure: Investor CDP
- 301 GHG Accounting for Forest Inventories
- 302 GHG Accounting for Forest and Other Land Use Projects
- 311 GHG Accounting for Landfill Methane Projects
- 312 GHG Accounting for Coal Mine Methane Projects
- 321 GHG Accounting for Energy Efficiency Projects
- 331 GHG Accounting for Renewable Energy Projects
- 351 CDM/JI: Navigating Kyoto Project Mechanisms
- 401 GHG Verification for Inventories and Projects