

National Training Strategy
For Clean Air Officials

Revised per Joint Training Committee at March 2006 meeting
3/3/06

I. Vision

A national training program that enables local, state and federal air quality professionals to develop the knowledge, skills and abilities to effectively contribute to attaining and maintaining healthy air quality, to quickly learn new job responsibilities and to maintain, enhance and update skills in their existing areas of responsibilities.

II. Goals

The goals of the national training program are to:

1. Understand the training needs of local, state and federal air quality officials on an on-going basis.
2. Provide training opportunities that meet the needs of local, state and federal air quality professionals utilizing effective and cost-efficient training methods.
3. Utilize course material that is up to date, complete and easy to use.
4. Ensure that training is effective by using instructors who are recognized subject matter experts, communicate clearly and are effective teachers.
5. Enhance the delivery of training through the use of existing, new and emerging technologies where appropriate.

III. Elements of the Training Strategy

The following sections will provide options and recommendations for addressing elements of the training strategy.

1. Communication

Achieving our vision for a national training program will require collaboration among state and local air quality agencies, EPA and other entities contributing to the program's success. Effective communications among the collaborators, and between the collaborators and the end-users, is essential to achieve our vision.

- EPA (including OAR, OECA and the regions) will communicate its strategic priorities and programmatic changes so that training needs assessments and course development and offerings can reflect these priorities.
- EPA will communicate upcoming rulemakings and policy changes that require changes to courses or new courses. This communication will occur early enough so that courses can be developed and existing courses can be modified.

- States and localities will communicate information relevant to developing courses and curriculum, such as training plans for staff.
- An effective way will be developed for communicating course opportunities and curriculum requirements to new employees, training coordinators and existing employees.

2. Assessment of needs

A needs assessment provides vital information to understand the training needs of local, state and federal air quality officials on an on-going basis. An assessment consists of various formats, including formal surveys and discussions with local, state and federal air quality staff in order to identify core training needs and emerging issues for which training is needed and to determine if current course curricula are sufficient to meet the needs. The needs of new staff and seasoned staff will be different. Input on the assessment should not be limited to either one of these audiences. Valuable input can be obtained through surveys or discussing the needs of each audience with management.

- A periodic assessment will be conducted at the local, state and national level and will be updated frequently. The assessment is not static, but an ongoing process. Needs change over time due to various factors including changes in regulations, new procedures, new science, etc.
- State and local agencies will be encouraged to maintain training plans for their staff.
- The assessment will assess, in addition to core training needs, the special needs of states and localities due to regional variations in air quality and sources.
- In developing the assessment, upcoming and future regulatory requirements should be taken into consideration. For example, if EPA is slated to revise the New Source Review (NSR) requirements, then NSR training will likely be necessary.

3. Development of curriculum

In order to ensure that the training provided by the national training program meets the full range of needs of local, state and federal air quality professionals, curricula for core and specialized competencies will need to be developed. Suggested core air quality course curriculum includes:

- Introductory core courses
- Inspection and Enforcement
- SIP Planning and Development
- Air Quality Monitoring and Data Management
- Permitting and New Source Review
- Mobile Sources
- Modeling

- A suggested curriculum for core air quality positions that is acceptable and available to all agencies will be developed. Existing curriculum will be reviewed and modified.¹
 - A curriculum will be developed for new employees that prepares them in the subject matter areas described above. A curriculum will be developed for existing employees to refresh their skills and update them.
4. Development and updating of course content and workshops

Currently there are courses that cover basic and advanced topics. The courses developed by EPA's Air Pollution Training Institute (APTI) are available for anyone to deliver and cover key information; however, the material in some courses is out of date and/or in an old format and hard to distribute. Training providers also have courses of value, including ones based on APTI material but significantly improved. In addition, there is an ongoing need to develop new courses and update existing course material. Another method of instructing staff is workshops, which differ from courses in that they do not test students on the material presented.

- Existing courses
 - In 2006, existing courses will be reviewed to determine which are in good shape and need only slight revising, which ones need substantial updating or editing, which ones should be scrapped and redone completely and which ones should just be scrapped. This evaluation will also include a determination of which formats are best for delivering material in these courses: classroom, web or something else. See Appendix 3, which lists all existing courses.
 - In addition, each year existing courses will be reviewed to determine whether they need to be updated or modified. Course evaluations are an important tool for determining whether a course needs to be revised.
 - A priority-setting system for selecting courses to be updated will be developed.
- New courses and workshops
 - Each year a review will be conducted to choose new courses to be developed. However, before a new course is developed, existing courses will be surveyed to see if the subject matter is covered elsewhere.
 - Courses and workshops will be developed based on the periodic needs assessment.
 - Specialized (advanced and/or region-specific) training opportunities will be developed in such a way that the material could be tailored for use by others. The specialized training courses will be made available to all users.

¹ Existing curriculum include: 1) the STAPPA/ALAPCO Joint Training Committee suggested curriculum for different air agency staff (federal, state and local) (1998); 2) NESCAUM's curriculum and 3) [others?]. See Appendix 2 for details.

5. Course format development and updating

EPA's *Training Benchmarking Study* listed these criteria for selecting a delivery method:

- Size of audience (large or dispersed vs. small or close together)
- Learning styles of training audience
- Complexity of course material
 - More complex: classroom or interactive synchronous training methods
 - Hands-on: classroom or laboratory
 - Less complex: self-instructional or web-cast or blended
- Travel restrictions
- Just-in-time information – live webcast, satellite or teleconference works best. For complex just-in-time information, regional workshops may work best.
- Need for standardized messages
- For more tailored delivery, classroom or workshops work best.
- Need for interaction (if need extensive Q&A or discussion, classroom, workshops or live Web-cast best)
- Requirements for certification (courses that can track student progress are best – classroom)
- Frequency of updates (courses that must be updated frequently best for self-paced Web)
- Budget (costs of delivery, including up-front costs, and travel costs of students and teachers)

In addition, classroom training has the benefit of providing a venue for interaction among classmates and with EPA.

- Different technologies will be explored for satisfying training needs and performing training functions.
- Consideration will be given to blended learning approaches. For example:
 - Web plus classroom offered multiple times per year
 - Web self-instructional (SI) course to bring everyone up to speed
 - Classroom portion for Q&A and interaction
 - Web SI or web-cast after to reinforce/complete course
 - Web SI course plus live Web-cast
- Consideration will also be given to the use of web resource pages, including web resource pages that also have experts who could be contacted for further explanation.
- A workgroup of experienced training providers will evaluate the costs and effectiveness of alternative delivery methods.
- Instructors will have the following attributes:
 - subject matter expertise,
 - applied experience in the field,
 - flexibility in working with state and local agencies, and

- demonstrated teaching ability in the medium of delivery.

6. Training Program Administration

Another important component of training is administration of training, which includes scheduling courses, reviewing and acting upon course evaluations, and handling course materials and record-keeping. This activity ensures that training is provided effectively and efficiently and in a coordinated manner.

- a. Training Evaluations
 - A model course evaluation form will be used by all instructors (the STAPPA/ALAPCO Joint Training Committee has developed such a form).
 - Evaluations will be compiled and the results will be analyzed to continuously assess course content and the effectiveness of training providers.
 - Evaluations will be reviewed in order to determine changes needed to course or course delivery or instructor.
- b. Course scheduling
 - Courses will be scheduled for local, state and federal staff in a way that ensures the training needs of staff are being met and that course offerings are not duplicated unnecessarily.
 - There will be a master course calendar accessible to all.
- c. Training logistics
 - There will be a method to store and distribute course materials that ensures that course material is made available to providers and students on a timely basis and in a usable format.
 - There will be a method for record-keeping for course completion and curriculum completion.
- d. Training coordinators
 - Training coordinators will be identified in each local and state agency, MJO and EPA region to act as a primary point of contact on matters related to training.

7. Resources

It is important that training be adequately funded on a consistent basis in order to ensure a vibrant training program. The current program provides for forward funding (i.e., Fiscal Year 2006 dollars fund Fiscal Year 2007 activities), which is important for planning purposes – such as scheduling of courses, which needs to occur well in advance of the delivery date. Resources will be sought for training from all partners (local, state and federal) and other sources, where appropriate.

- The Joint Training Committee will determine the resources (both human and financial) needed to achieve our goals in the coming years based on a periodic assessment of training needs, coupled with an

evaluation of the ability of the current program to meet the needs as determined through the assessment.

- The Joint Training Committee will advocate for, and make every effort to secure the resources needed to achieve the training program vision and goals and to fully implement the national training strategy. The strategy itself will be structured in such a way that decisions related to increased or decreased resources will be guided by the priorities established in the strategy.

IV. Options for Implementation

The group considered different options for achieving the training vision outlined above and assessed the strengths and weaknesses of different entities or organizations.

We considered creating a national training manager or having an existing organization serve as the national training manager. Housing all training responsibilities in one entity has the virtue of ensuring consistency, avoiding duplication of effort and serving as a “one-stop” shop for training. However, many raised concerns that training needs differ among regions and even among states and wanted to preserve the ability to develop specialized, region-specific courses. In addition, a decentralized approach allows for different training options to be pursued and tested – for example, one entity might experiment with web-based learning for one course and another with a workshop.

We also considered adopting a decentralized approach. However, we realized that it doesn’t make sense for some tasks to be replicated across the nation. For example, it makes more sense to have one standardized basic permitting course instead of multiple different basic permitting courses. It would also be more efficient for one entity to house a master calendar of courses and to develop core curriculum for positions.

In the end, we concluded that all entities – EPA headquarters, EPA regions, multijurisdictional organizations (also known as regional consortia), STAPPA/ALAPCO, state and local agencies and training providers (such as universities) had strengths in different areas and were best suited for different tasks, so all these entities need to be involved in training. Collaboration among local, state, regional and federal entities on training is necessary for a vibrant training program.

V. Recommendation

Multiple organizational approach

Our recommendation is that organizations at the national, regional, state and local and university/private sector level all be involved in implementing the training vision, as they each have strengths to offer in conducting various training tasks. These organizations include:

- EPA

- OAR, and within OAR, OAQPS and OTAQ;
 - OECA; and
 - EPA regions
- STAPPA/ALAPCO
- Multijurisdictional organizations (MJOs), also known as regional consortia
 - NESCAUM;
 - MARAMA;
 - Metro4/SESARM;
 - LADCO;
 - CenSARA; and
 - WESTAR
- State and local air agencies
- Training providers
 - Universities
 - Consultants

Assignment of Responsibilities

We developed a matrix to outline our vision; it is attached as Appendix 4.

Curriculum

EPA HQ will take the lead in developing the “core curriculum” for career paths, with input from STAPPA/ALAPCO’s Committees, through the Joint Training Committee. MJOs and regions may tailor the curriculum to reflect regional and specialized needs. For example, some areas may need training on Inspection & Maintenance programs while other areas that don’t have I&M programs won’t. Some areas may desire training on greenhouse gas reduction planning or wind-blown dust control programs. Training providers could be contracted with to assist in this effort.

Course development and updating

Depending on the type of course, different organizations have been tapped for this responsibility. Note that development of a specific course could be contracted out to someone with subject matter expertise and expertise in devising training. These could be long-term contracts awarded competitively. A long-term contract provides stability and assurance of funding. The material should not be copyrighted – so others can use and modify – and be suitable for delivery in a variety of forms. The focus would be on maximizing blended delivery options, but the ultimate decision on delivery method would be made by the organization creating the course with contractor input, since the contractor would have expertise in training methods.

Basic courses

For basic courses, it is important that all students learn the key same concepts and thus that there be standardized course material of national applicability.

Accordingly, EPA HQ will handle development of these courses. These courses will be developed both in an on-line format and classroom setting format.

Region-specific courses

For courses that are regionally-specific, or for a regional take on the standardized courses, EPA regions and the MJOs will handle.

Advanced courses

EPA HQ, regions and MJOs all are suitable for developing advanced courses and thus each will have the responsibility of developing advanced courses.

Laboratory courses

Universities or private sector entities will be responsible for these courses, although more use of federal laboratory expertise will be explored.

New EPA rules and policies

As the organization with the most knowledge about new rules and guidance, EPA will develop and give training on new/breaking issues – for example, training on the final 8-hour ozone implementation rule (phase 1 and phase 2).

Workshops

Workshops differ from courses in that they are more informal and there are no tests given to gauge student learning. No lead organization is assigned for this task since it is a choice of how to deliver course material.

Course formatting

The group agrees that there are strengths and weaknesses to different methods of delivering course material. For example, classroom courses are preferred by many, but they require travel by a student and/or the teacher and limits in travel funding may preclude many from attending classroom courses. A satellite network run by EPA is used by many states and localities but it is expensive to set up and run. Web-cast or on-line instruction is more accessible, but these formats provide less interaction and opportunity for questions. There are also questions about how expensive it is to set up and maintain a web-cast system.

Accordingly, the group recommends that EPA conduct a pilot study to evaluate the strengths and weaknesses of different course formats and the life-cycle costs of each type of format. The developer of a course (and the entity that chooses to offer the course) is the final decisionmaker on course formatting, but the group recommends that this decision be influenced by the study and that the course developer solicit feedback/views from the Joint Training Committee.

Instructors

EPA HQ will provide instruction on new rules and policies. EPA regions will also provide such instruction and also provide region-specific guidance on these new rules and policies.

For all other types of courses, training providers will be used and evaluations of instructional performance will influence the decision on whom to hire.

Training evaluations

EPA HQ will develop a standard course evaluation form to be used by all. (This task has already been accomplished.) The organizations giving training will use this form for their courses (with the opportunity to add questions to the form). EPA HQ will be responsible for consolidating responses to evaluations, summarizing them and communicating the results. For courses developed by MJOs, they will be responsible for consolidating responses to evaluation, summarizing them and communicating the results.

Course scheduling

Each organization giving training is responsible for scheduling that training, but the Joint Training Committee will coordinate course scheduling so that courses are spread throughout the year. EPA HQ will take the lead on scheduling core courses.

Master course calendar

It is important that all organizations that give courses have access to a master course calendar to schedule courses most efficiently. Either EPA HQ or STAPPA/ALAPCO will manage a master course calendar; all organizations will be responsible for inputting information into the calendar.

Training program administration

The group recommends that these tasks – registration for courses, a catalog of courses, course materials depository and distribution, transcripts and certificates – be distributed. First, each organization giving training is responsible for registering people for those courses. Second, EPA OAR and NETI will house and distribute course material for courses they develop. Third, MJOs and EPA regions will house and distribute course material for the courses they develop. Finally, MJOs will keep records of courses (transcripts) that students in their jurisdictions attend and MJOs have the option of developing a certification program if they so desire. [What about a course catalog?]

Resources

Multiple resource opportunities will be explored for funding training. The following is a list of funding sources, some of which are more promising and predictable than others:

- EPA programmatic funds
- Separate training appropriation
- Other federal funds (Biowatch, e.g.)
- Supplemental Environmental Project (SEP) funds – our understanding is that these funds need to be tied to the enforcement action subject matter or defendant's industry sector

- State and local section 103 and 105 money
- State and local budgets
- Partnering (with nonprofits and the private sector)

Needs assessment

Each organization will conduct its own training needs assessment. EPA HQ will conduct a national training needs assessment to assess the need for basic and advanced courses and the need to update these courses. EPA regions and MJOs will use the national training needs assessment but also conduct a more in-depth training needs assessment of their regions to 1) develop courses responsive to regional needs (including advanced courses) and 2) communicate to EPA HQ the need to modify a standardized course. State and local agencies will also conduct their own needs assessment to ascertain the training needs of their staff and communicate these needs to EPA HQ and MJOs.

VI. Next Steps

1. The STAPPA/ALAPCO Training Committee Chairs will present this training strategy to the STAPPA/ALAPCO Boards of Directors and Committee Chairs at their meeting January 28-30, 2006 and solicit feedback. The chairs will also recommend that the strategy be placed on the agenda for the STAPPA/ALAPCO spring membership meeting April 30 – May 3, 2006.
2. The National Training Strategy group will develop a transition plan after hearing from the STAPPA/ALAPCO Boards of Directors and Committee Chairs.
3. Scott Mathias and Eddie Terrill (STAPPA President) will present the strategy to EPA management.
4. The National Training Strategy group will present this strategy to the Joint Training Committee (JTC) at its March 1-3, 2006 meeting and solicit feedback.
5. Assuming the agenda item was approved, the STAPPA/ALAPCO Training Committee Chairs will present the strategy to STAPPA/ALAPCO members at the STAPPA/ALAPCO spring membership meeting April 30 – May 3, 2006.
6. The strategy will be implemented, including:
 - a. A subgroup of the JTC (state and local agency members only), led by Arturo Blanco, will be formed to discuss options for training provider funding. Work will be completed before the summer STAPPA/ALAPCO Boards of Directors and Committee Chairs meeting (July 29-31, 2006).
 - b. A subgroup of the JTC, led by Mary Boyer, will be formed to explore options for conducting pilot project examining course formatting options. Work will be completed by July 2006.
 - c. The JTC, led by Charla Rudisill, will reach out to the STAPPA/ALAPCO Committees for form a group to develop curriculum for various positions (III.3). Work will be completed by June/July 2006.
 - d. STAPPA/ALAPCO (Amy Royden-Bloom) will explore the capability of putting calendar on a web site accessible to all and modifiable to all.

Attachments: Appendices 1, 2, 3 and 4.

Appendix 1

The following is a list of questions that need to be addressed in the program elements section of the strategy. The order of the questions is random; it does not reflect the level of importance to the questions.

1. Overall programmatic goals
 - a. Considering the needs of our agencies, the reaffirmed goals of a national training program and the compromises necessary to bring us within budget realities, what is the strongest concept we can offer to the directors and is it truly workable?
 - b. Where are we currently falling short in achieving those national training goals? What are the most significant strengths of the current training program that we would want to maintain in a future program?
 - c. What is the appropriate balance between reaching the largest number of people and providing quality training in an effective manner?
 - d. What transition plan do we envision to move from the present state to the short and long term vision? Although a transition plan is necessary to make orderly changes, every reasonable effort should be made to identify and make progressive and sensible changes sooner, rather than later.
2. Assessing training needs
 - a. How often should a training needs assessment be conducted?
 - b. What kind of training needs assessment should be conducted at a national level? Regional level? State level? Local level?
 - c. What should drive the assessment of training needs? Curriculum requirements? EPA strategic priorities?
3. Development of a curriculum and courses
 - a. What are the gaps – courses needed but not available or too expensive?
 - b. What courses are available to fulfill this curriculum and how much do they cost?
 - c. What are the kinds of courses that are needed for state/local air quality training?
4. Selection of delivery methods
 - a. What is the recommended delivery method for these courses – in the short run (next 2 years) and in the longer run (next 10 years)?
 - b. What new technologies and variations now exist to help deliver training in ways that enhances its effectiveness compared to traditional delivery methods?
 - c. How strongly do we want to train only in the most highly effective manner? For instance, since educators will likely always tells us that in theory the best learning occurs in a formal classroom setting, is this the only way we will accept the majority of our courses in the future?
 - d. What is an acceptable compromise (if any) in the effectiveness of training delivery that we might accept in order to train the largest number of staff possible? For instance, must we achieve a 95% effectiveness level for training regardless of whether we can only train a handful of staff to that

- degree? Or would we accept an 80% effectiveness level in return for a methodology that ensures that 80-90% of our staff receive the training they need in a timely manner?
- e. Instructors – who is best at instructing?
 - f. What additional guidance and support could we give training coordinators, managers and facilitators that might enhance the effectiveness of future course presentations that might not be done in the traditional classroom setting?
5. Budget and resources
 - a. What is the recommended budget strategy for implementing the desired training program?
 6. Roles and responsibilities
 - a. Which entity should update the curriculum for different job functions on an ongoing basis?
 - b. Who would develop and update courses, how it is done and who picks which ones will be updated/developed?
 - c. What is EPA's, STAPPA/ALAPCO's and the regional associations' recommended role(s) in implementing a training program for state/local air quality agencies?
 - d. Who should select the instructors?
 - e. Training clearinghouse – who should be responsible for assessing training needs and maintaining a master schedule of courses, repository of material, sending out material, etc.
 - f. What are core activities that are necessary to support training and that would be key to future decision making? Such activities could include course updating, new course development, provision of student and instructor materials, production of course, certificates, training calendar, web site and maintenance of data bases containing student training history.
 - g. Are there efficiencies to be gained by handling each individual core activity at the national, regional or state/local level?
 7. Technology
 - a. What sorts of technology are available to carry out the functions listed in the training strategy?
 - i. Can we use existing infrastructure?
 - ii. If not, can we use that infrastructure as a model?

Appendix 2

[Need to insert STAPPA/ALAPCO suggested curriculum – but it's 44 pages – see <http://www.4cleanair.org/TrainingPlan.pdf>]

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NESCAUM

NORTHEAST STATES CLEAN AIR ACADEMY

Course Requirements

January 2004

To receive a Northeast States Clean Air Academy certificate, students must register with the Academy by completing an application form (see the Academy Binder for a copy of this form) and indicate the study track you will pursue. Students must complete all of the courses (or their equivalent) listed under the Core Courses and those listed under one of the Tracks to receive a certificate. Students registering with the Academy after March 1, 2000 will be required to take three additional air quality management courses. These three electives may be self-instructional or classroom courses and must be approved by the Academy. With a variety of self-instructional courses available and the Academy continuously offering classroom courses, many opportunities exist to complete these electives.

Students may choose to take courses from more than one Track, but we recommend that you complete one Track before continuing onto another one. Students may receive only one certificate, so if additional Tracks are completed, students and their supervisors will receive a letter acknowledging the completion.

All of the courses listed below are provided through EPA's Air Pollution Training Institute (self-instructional courses are indicated by SI and classroom courses are indicated by CR), California Air Resources Board (CARB), Rutgers Air Compliance Center (RACC), or NESCAUM (courses developed or sponsored by NESCAUM). Certificates are awarded on the basis of professional training, not work experience, and equivalency may be given for courses not listed. Please see your Training Advisor for a copy of the Equivalency Matrix and a schedule of upcoming courses. Students should submit applications for equivalency to their state Training Advisor.

Core Courses

These courses are recommended for all employees: anyone new to the air quality control program, staff changing functions within the air quality control program, or as refresher courses:

- SI 300 Introduction to Air Pollution Toxicology
- SI 409 Basic Air Pollution Meteorology
- SI 422 Air Pollution Control Orientation
- SI 431 Air Pollution Control Systems for Selected Industries
- SI 460 Introduction to Permitting

Academy Tracks

In addition to the listed courses under each Track or their equivalent (see the equivalency matrix found in the Academy Binder), three professionally relevant, air quality management courses must be taken to receive an Academy certificate. These three electives may be self-instructional or classroom courses and must be approved by the Academy.

Track I - Inspection and Enforcement

- SI 443 Chain-of-Custody Procedures for Samples and Data
- SI 445 Introduction to Baseline Source Inspection Techniques
- SI 446 Air Pollution Source Inspection
- CR 444 Air Pollution Field Enforcement
- CR 452 Principles and Practice of Air Pollution Control
- NESCAUM Smoke School

*Track II - New Source Review and Permitting**

* Due to the NSR Reform debates and the lack of a finalized program, this track will be further modified in the future.

- SI 406 Effective Stack Height/Plume Rise – Archived (TBD)
- SI 412A Fabric Filter Operation
- SI 412B Electrostatic Precipitator Plan Review
- SI 453 Overview of PSD Regulations – Archived (TBD)
- SI 460 Introduction to Permitting
- CR 423 Dispersion Models Application
- NESCAUM NSR Review Workshop

Track III - SIP Development

- SI 434 Introduction to Ambient Air Monitoring
- SI 473 Beginning Environmental Statistical Techniques
- EPA's SI Introduction to Environmental Statistics
- CR 423 Dispersion Models Application
- CR 452 Principles and Practices of Air Pollution Control

Track IV - Air Quality Monitoring and Data Management

SI 434 Introduction to Ambient Air Monitoring
SI 436 Site Selection for Monitoring SO₂ and PM-10 in Ambient Air
SI 437 Site Selection for Monitoring of Photochemical Pollutants and CO in Air
SI 471 General Quality Assurance Considerations for Ambient Air Monitoring
SI 473 Beginning Environmental Statistical Techniques
SI 473B Introduction to Environmental Statistics

Track V - Mobile Sources

This Track is under development. Relevant courses include the NESCAUM Introduction to Mobile Sources - 101, NESCAUM's Advanced Mobile Sources 201 – Diesel, Mobile modeling, OBD, and Transient Testing. Prior to embarking on this track, students should consult with their supervisors and training advisors.

Track VI - Interdisciplinary

To take courses for a Track V certificate, students must submit a plan of study to their supervisors and state training advisors who, along with the Academy, will determine whether the course plan is sufficient to meet certificate requirements. Suggested courses for this Track include:

EPA's SI Introduction to Environmental Statistics
CR 427 Combustion Evaluation
CR 502 Hazardous Waste Incineration
CARB 200 or 300 Series courses
NESCAUM Advanced Mobile Sources 201 - Diesel
NESCAUM ROVER Technology
NESCAUM Negotiation Skills

Appendix 3

[Need to insert Jeff Cole's list of existing courses and instructors]

Appendix 4

X = Lead entity with responsibility for these training tasks

Task	EPA HQ	EPA Regions	MJOs	S/L Agencies	STAPPA/ ALAPCO	Training Providers	Comments
Curriculum development	X				X (Committees and Joint Training Committee)		EPA responsibility but S/A and training providers need to be involved
Course content development and updating – basic courses	X (on-line mainly; classroom too if possible)						Standard courses should be made available by HQ in different formats if possible; training providers should be involved
Course content development and updating – advanced courses	X	X	X				Shared responsibility based on regional needs and priorities; training providers should be involved
Course content development – laboratory courses						X	More use of federal laboratory expertise needed
Course content development – region-specific courses		X	X				
Workshops	X (new rules & policies)	X (region-specific)	X (region-specific)	X (as needed)	X (Committees)		No tests, more interaction and information exchange. Information transfer for new and revised federal programs.
Course formatting	X(pilot study and evaluation)		X (delivery)		X (strategy priority list)	X (collaboration)	Developer of course would choose format, but use pilot study/evaluation to inform decision

Task	EPA HQ	EPA Regions	MJOs	S/L Agencies	STAPPA/ ALAPCO	Training Providers	Comments
Instructors	X (new rules and policies)	X (new rules and policies – region-specific)	X (peer-to-peer training)			X (course instruction)	Review evaluations to determine instructor competence
Training evaluations	X (develop, consolidate, and publish)	X (administer)	X (administer; summarize and publish for courses they develop)			X administer	EPA needs to be responsible for consolidating responses to evaluations and posting/communicating results
Course scheduling	X	X	X	X	X	X	Should have coordination of calendar of courses to spread over the country and year. Could EPA HQ handle certain core courses?
Master course calendar	X master calendar				X master calendar consultation		Requires national coordination at some location but we will explore web-based system that all providers and MJOs can access to enter calendar items
Training program administration (Registration, certificates, catalog, materials, transcripts)	X OAR & NETI		X courses that they give			X courses that they give	Recommend distribution of this responsibility
Resources	X	X	X	X			Shared
Needs assessment	X	X	X	X	X		Every entity needs to assess needs but there will be national coordination

