State and Territorial Air Pollution Program Administrators (STAPPA) Association of Local Air Pollution Control Officials (ALAPCO)

FY2005/2006 Training Needs Assessment Survey

Final Report

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Submitted to:

Education and Outreach Group
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Introduction

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One of the primary functions of the Office of Air Quality Planning and Standards (OAQPS), U.S. Environmental Protection Agency (EPA)'s Education and Outreach Group (EOG), is to provide training in air pollution control to employees of State and local agencies. One of the most significant impacts on this activity over recent years has been an extensive, in-depth training needs assessment survey conducted biannually under the direction of the State and Territorial Air Pollution Program Administrators (STAPPA) and the Association of Local Air Pollution Control Officials (ALAPCO).

EOG contracted with SYSTANI, Inc. to assist in revising the prior FY2002/FY2003 survey instrument and to compile and analyze the FY2005/2006 data collected by STAPPA/ALAPCO in October-December 2003. With input from a STAPPA/ALAPCO working group, a revised survey instrument was developed to assess the FY2005/2006 Training Needs related to currently available courses and future air pollution control training needs (see *Appendix A*. for a complete copy of the final survey instrument). The survey instrument was tested with a pilot group of 9 individuals. Revisions were made and the final survey provided to EPA. STAPPA/ALAPCO distributed the surveys. Completed surveys were provided to SYSTANI for analysis and presentation. The results of the survey were compiled and were to be presented at a meeting of the STAPPA/ALAPCO Joint Training Committee (JTC) March 2-4, 2004 in San Diego, California. The data collected in 2003 was compared to data from the 1997, 1999, and 2001 survey results. All survey data and related queries are included in an MS Access 2002 database, which will allow training providers to identify agencies that indicated their training courses.

The following training providers are referred to throughout this report:

EDA/Ain Dallastian Training Institute

APII	EPA/Air Pollution Training Institute
CARB	California Air Resources Board
NETI	EPA/National Enforcement Training Institute
OTAQ	EPA/Office of Transportation and Air Quality
RACC	Rutgers University Air Compliance Center

Air pollution agencies are organized in several ways: by EPA Region and by Regional Consortia. There are 10 EPA regional offices that represent all 50 of the United States, the District of Columbia, and Puerto Rico. The regional associations related to air pollution control are:

- CENSARA (Central States Air Resources Agencies)
- LADCO (Lake Michigan Air directors Consortium)
- MARAMA (Mid-Atlantic Regional Air Management Association)
- METRO-4/SESARM (Southeastern States Air Resources Management)
- NESCAUM (Northeast States for Coordinated Air Use Management)
- WESTAR (Western States Air Resources Council)

Differences from FY 2002/2003 Survey Instrument

Several changes were made to the FY2005/2006 Air Pollution Training Needs Assessment Survey instrument in an effort to increase the usefulness of the data and to make it easier for respondents to complete the survey (see Appendix A.). Key differences from the FY 2002/2003 Training Needs Assessment Survey are:

- **General** The section for the name and title of person who reviewed the survey responses was expanded with a signature and date field added. The questions about access to email at work and if the person who reviewed responses had budgeting authority were dropped in addition to the fields for the training coordinator information.
- **Agency Profile** A section was added for agency profile to determine staff with air program responsibilities and in what areas. Data from this section is hoped to also provide an indicator of estimated staff retiring, new hires, and current staff with less than two years experience.
- Question A: Current Classroom Courses The question which identifies needs for current courses asks for respondents to indicate "the number of staff you project will need these courses in FY2005/2006". In addition to updating the list of courses, the wording of the question was changed to provide more explicit instructions and an example was provided. Also, instead of one column of estimated staff, the respondents were asked to indicate projected staff if the courses are offered in state, if only offered in the region, or if only offered out of the region.
- Courses Needing Updating This question asked respondents to identify courses that need to most updating based on courses they have taken in the past two years. Results from the previous survey did not yield significant results so this question was dropped.
- Question B: Potential New Topics The question which identifies needs for potential new training topics asks for respondents to indicate "the number of staff you project will need training in these topic areas in FY2005/2006". In addition to updating the list of courses, the wording of the question was changed to provide more explicit instructions and an example was provided. Also, instead of one column of estimated staff, the respondents were asked to indicate projected staff if the courses are offered in state, if only offered in the region, or if only offered out of the region. Category headings were added to help respondents find topics easier. The column in the FY2003/2003 survey for respondents to indicate the Preferred Delivery Method for the topics they selected was dropped.
- Question C: Factors that Influence Training This question was added.
- **Timing** The FY 2005/2006 survey was distributed earlier than the FY 2002/2003 survey. Respondents received the survey in early October 2003 (compared to November) and were asked to submit it by October 31, 2003. All responses were received by December 5, 2003, more than a month earlier than the prior instrument.

Overview of Survey Responses

Response Summary

A total of 88 agencies completed the FY2005/2006 Training Needs Assessment Survey. Surveys were distributed to members of STAPPA and ALAPCO (state and local air agencies) via mail and email with follow-up emails to STAPPA and ALAPCO directors and training committee members noting which agencies had returned surveys. In addition, surveys were distributed to tribal agencies with air concerns by the Institute for Tribal Environmental Professionals. There are 53 state agencies that are members of STAPPA to include 48 of the United States (all except Colorado and South Dakota), the District of Columbia, American Samoa, Puerto Rico, Guam, and the Virgin Islands. ALAPCO membership is made up of 185 local air agencies in 33 of the United States. The survey was also distributed to 89 leading air quality tribal professionals and the manager of an email distribution list targeted to tribal air professionals. The survey was not distributed to EPA regional offices as it had been in prior years.

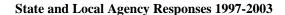
Distribution of FY2005/2006 Survey Responses by Agency Type

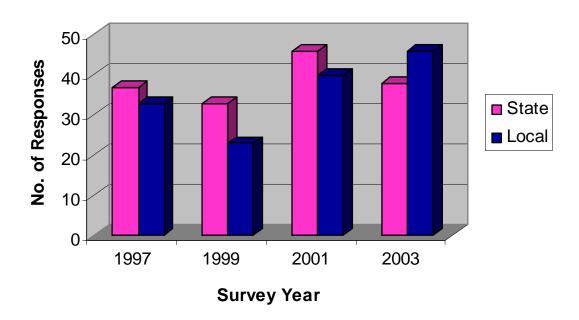
Agency Type	2003 Responses	2001 Responses	1999 Responses	1997 Responses
State	38	46	34	37
Local	46	40	25	33
Federal	NA	3	23	0
Tribal	4	NA	NA	NA
Total	88	89	86	70

- STAPPA had 71.70% of its members respond to the survey (38 out of 53), down from 85.2% in 2001.
- ALAPCO had 24.86% of its members respond to the survey (46 out of 185), down from 31.75% in 2001.
- Approximately 4.5% (4) of the 89 tribal agencies responded. One tribal agency responded that they did not have an air agency and was not included in the survey counts.

State and Local Response Summary

In 2003, there was a 17.4% *decrease* from 2001 in the number of state responses to the FY2005/2006 Training Needs Assessment Survey and a 15.0% *increase* from 2001 in the number of local responses.





- State Agency Responses: No responses were received from the following STAPPA member states: Louisiana, Idaho, Mississippi, Montana, North Dakota, and New Mexico. Responses were not received from American Samoa, Guam or the US Virgin Islands.
- Local Agency Responses: Of the 33 states with local air agencies, Nebraska, Nevada, and Pennsylvania had all local agencies responding for their state. Eleven states (Alaska, Connecticut, Illinois, Michigan, Minnesota, Montana, New Jersey, New Mexico, Utah, Virginia, and Wisconsin) did not have any local agencies respond to the survey.

Regional Consortia Response Summary

The chart below indicates the states responding agencies were from, grouped by regional consortia. The percentages are based on the number of responses compared to the total number of state and local agencies in each regional consortium.

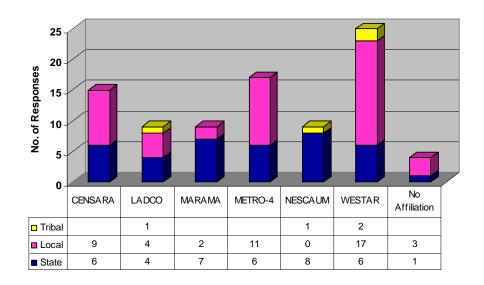
2003 Response Distribution by Regional Consortia

Regional Consortia	States in Consortia (bold responded)	No. of State Responses	% of State Agencies Responding	No. of Local Responses	% of Local Agencies Responding	Total State & Local Responses	% of All Agencies Responding
CENSARA	AR, IA, KS, LA, MN, MO, NE, OK, TX	6	66.67%	9	34.62%	15	42.86%
LADCO	IL, IN, MI, OH, WI	4	80.00%	4	14.29%	8	24.24%
MARAMA	DC, DE (state), MD (state), NC (state), PA, VA (state), WV (state)	7	100.00%	2	100.00%	9	100.00%
METRO-4/ SESARM	AL, FL, GA, KY, MS, NC (local), SC, TN	6	85.71%	11	45.83%	17	54.84%
NESCAUM	State Only: CT, MA, ME, NH, NJ, NY, RI, VT	8	100.00%	NA	NA	8	100.00%
WESTAR	AK, AZ, CA, CO (local), HI, ID, MT, ND, NM, NV, OR, UT, WA, WY	6	46.15%	17	25.37%	23	28.75%
No Affiliation	AS, CT (local), GU, MA (local), MD (local), NJ (local), NY (local), PR, VA (local), VI	1	25.00%	3	7.89%	4	9.52%
Totals		88	71.70%	46	24.86%	84	35.29%

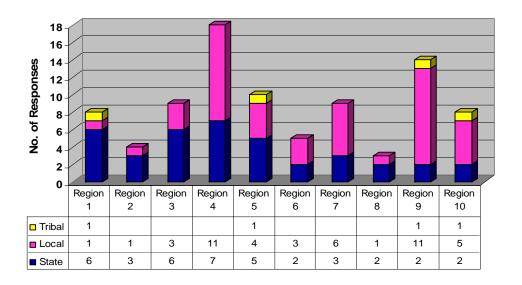
- MARAMA and NESCAUM had 100% of the STAPPA members in their regional consortia complete the survey. WESTAR had the lowest percentage of states responding to the survey with only 6 out of 14 states completing the survey (46.15%).
- MARAMA had the highest percentage of local agencies participate in the survey with a 100.00% response rate (2 out of 2 local agencies). METRO-4/SESARM had the second highest percentage of local agencies participate in the survey with a 45.83% response rate (11 out of 24 local agencies).
- EPA Regions 1 and 3 had 100% of the STAPPA members in their region complete the survey. Region 6 had the lowest percentage of states responding to the survey with 2 out of 5 states completing the survey (40%).
- EPA Region 10 had the highest percentage of local agencies participate in the survey with a 50% response rate (5 out of 10 local agencies).

The following bar charts show the number of surveys received by Agency Type for each Regional Consortia and for each EPA Region.

2003 Response Distribution by Regional Consortia and Agency Type n=88



2003 Response Distribution by EPA Region and Agency Type n=88



See Appendix H. for a complete listing of respondents by state and agency type.

Survey Respondent Demographics

Survey respondents were requested to indicate their responsibilities at their agency.

Survey Respondents Responsibilities

Area of Responsibility	Number Selecting	Percentage of Total Responses*
Training Coordinator/Manager	54	61.36%
Site Coordinator for Satellite Broadcasts	22	25.00%
Agency Director	15	17.05%
Other	17	19.32%
Not Specified	1	1.14%
Total	88	

- * 26 respondents (29.5%) selected 2 areas of responsibility.
- 17 people (19.3%) indicated combined responsibilities of training coordinator and site coordinator for satellite broadcasts.
- 4 people (4.5%) indicated combined responsibilities of training coordinator and agency director.
- Other responsibilities in addition to training coordinator for respondents included: Health and Safety, Outreach and Public Relations, Small Business Ombudsman, and Supervisor.
- Of the 17 respondents who selected "Other", the following responsibilities were specified:
 - Supervisor (3)
 - Program Manager (3)
 - Program Supervisor/Program Development Supervisor (2)
 - Program Training Coordinator (1)
 - Administrative Officer (1)
 - Air Quality Area Director (1)
 - Director of Environmental Health (1)
 - Inspector Training (1)
 - NESCAUM Liaison (1)

Review of Responses

Signatures were provided on 73 (83.0%) of the 88 surveys. Of those, 38 surveys (43.2%) were signed by someone other than the person completing or compiling the survey.

Summary of Agency Profile Data

In the FY2005/2006 Training Needs Assessment Survey, a new section was added to provide data on each responding agency's staffing profile. Responses are summarized in the tables below.

Total Air Program Staff

Agencies responding to the survey were asked to indicate the total estimated staff. Data was provided by 44 of the 46 responding local agencies and by 37 of the 38 responding state agencies.

Total Staff with Air Program Responsibilities

n = 85

Agency Type	Total Staff	No. of Agencies	Average Per Agency
Local	1,276	44	29.0
State	4,853	37	131.2
Tribal	6	4	1.5
Total	6,135	85	72.2

Areas of Responsibility

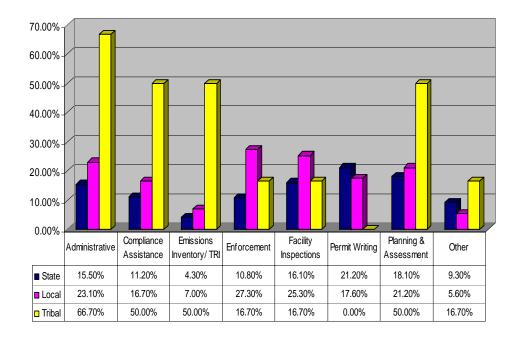
The number of staff with significant (generally, spends 20% or more of their time) responsibilities in the following areas is shown as actual counts and percentages of total air program staff.

Air Program Staff by Areas of Responsibility

	Total		State Agencies		Local Agencies		Tribal Agencies	
Area of Responsibility	No. of Staff	% of Total	No. of Staff	% of Total	No. of Staff	% of Total	No. of Staff	% of Total
Administrative (Management and Support)	1052.0	17.1%	753.5	15.5%	294.5	23.1%	4	66.7%
Compliance Assistance (Technical management, source evaluation, air toxics, outreach and education)	760.7	12.4%	544.6	11.2%	213.1	16.7%	3	50.0%
Emissions Inventory/TRI	301.7	4.9%	210.0	4.3%	88.7	7.0%	3	50.0%
Enforcement	874.8	14.3%	526.0	10.8%	347.8	27.3%	1	16.7%
Facility Inspections	1103.5	18.0%	780.0	16.1%	322.5	25.3%	1	16.7%
Permit Writing (Engineering, Modeling)	1253.0	20.4%	1028.0	21.2%	225.0	17.6%	0	0.0%
Planning and Assessment (Reg/SIP Development, Ambient Monitoring and Lab Analysis)	1151.0	18.8%	878.0	18.1%	270.0	21.2%	3	50.0%
Other	522.0	8.5%	450.0	9.3%	71.0	5.6%	1	16.7%

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Areas of Responsibility as Percentage of Total Air Program Staff



Other areas of responsibility specified (with number of responses indicated) were:

- Air Monitoring (11)
- Air Research (1)
- Asbestos (5)
- Indoor Air (1)
- Complaint Response (dust, noise, odor, open burn) (1)
- Contract Management Engineering (1)
- Field Operations (1)
- Geographic Information Systems (1)
- Hazardous Waste (Air) (1)
- Information Technology/Programmer (3)
- Mobile Air Resources (1)
- Mobile Source (8)
- MSS (1)
- Non-point Air (1)
- Quality Assurance (2)
- Radiation (1)
- Radon (2)
- Regional Modeling (1)
- Small Business Assistance (1)
- Stack Testing (3)
- CEMS Certification (1)
- Support Services (1)

Estimated Staff Turnover and Experience

The agency profile part of the survey asked three questions to help determine anticipated staff turnover for FY2004-2006 (October 2003-September 2006). Questions were:

- Estimated number of staff retiring in FY2004-2006
- Estimated number of new hires in FY2004-2006
- Current staff with less than two years experience

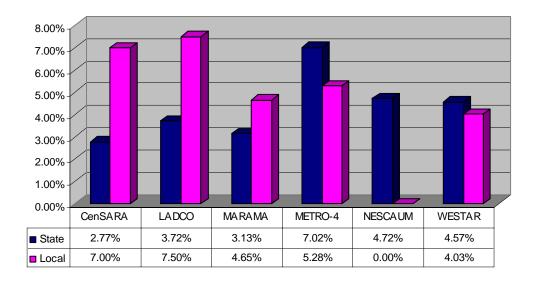
The table below provides the total number of staff estimated in each of these areas by agency type.

Estimated Number of Staff Turnover and Experience in FY2004-2006

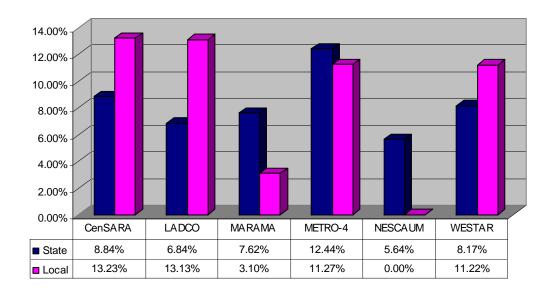
Agency Type	Estimated Staff Retiring	Estimated New Hires	>2 Years Experience
Local	67	142	172
State	212	404	445
Tribal	0	2	1
Total	279	548	618

The percentages of staff retiring, new hires, and staff with less than two years experience compared to total staff for each agency type is also shown by regional consortia.

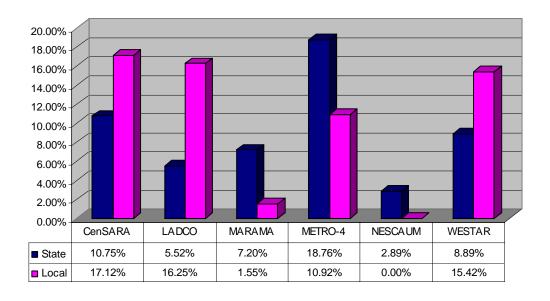
Estimated Staff Retiring in FY2004-2006 as Percentage of Total Air Program Staff by Regional Consortia



Estimated New Hires in FY2004-2006 as Percentage of Total Air Program Staff by Regional Consortia



Estimated Staff with <2 Years Experience as Percentage of Total Air Program Staff by Regional Consortia



Results

The results of the responses follow for each survey question (see *Appendix A*. for a complete copy of the survey instrument). Results displayed are for State and Local agencies only. The results from the four Tribal Agency responses are included in *Appendix D and G*.

Training Needs for Current Classroom Courses

Question A.

Using the list of currently available <u>classroom</u> courses below, indicate the number of staff you **project** will need these courses in **FY2005-FY2006** (October 2004 through September 2006). Enter the <u>total</u> number of staff likely to attend a training course in FY2005-FY2006. For each selected course, enter a number in each column to estimate the number of staff from your agency likely to attend regardless of where the course is taught (In State, In Region, or Out of Region).

There were 13 categories, 33 topic areas, and 139 courses listed for Question A.

The data indicates that the number of staff projected to attend the classroom course decreases significantly if the course is not offered in state and is instead only available in the region or out of the region.

	Projected Staff				
Agency Type	If In State	If In Region	If Out of Region		
Local	6,373	3,379 (down 47.0%)	1,016 (down 84.1%)		
State	17,941	5,661(down 68.4%)	1,754 (down 90.2%)		
Tribal	77	84 (up 9.1%)	66 (down 14.3%)		
Total	24,391	9,124 (down 62.6%)	2,836 (down 88.4%)		

The table below indicates the top ten ranking for selected current courses, the percentage of state and local agencies that selected the course, and the projected number of staff.

- All of the courses listed in the top ten from the FY2002/2003 survey results appear in the list of top courses for FY2005/2006.
- In the FY2002/2003 survey, the top ten courses were all APTI courses. In this survey, CARB, RACC and NETI courses are also in the top ten list.
- Many of the courses were tied for the number of respondents selecting the course with incremental changes for many of the courses selected.

Details of respondent data for current courses, by Regional Consortia and EPA Region can be found in *Appendix B and C* with Tribal Responses in *Appendix D*.

Top Ten Ranking for Current Classroom Courses Identified

n=84 (State and Local Responses only)

Course	Provider/ Course Number	No. of Responses Selecting	Percent Selecting	Projected Attending If In State	Projected Attending If In Region	Projected Attending If Out of Region
1. Hot Mix Asphalt Facilities	CARB/242	60	71.4%	305	93	42
1. Control of Particulate Emissions	APTI/413	60	71.4%	382	146	54
2. VOC Control Devices	CARB/284	57	67.9%	361	132	41
Introduction to Hazardous Air Pollutants	APTI/400	56	66.7%	371	166	61
Monitoring Compliance Test and Source Test Observation	APTI/468	56	66.7%	208	85	36
4. Concrete Batch Plants	CARB/244	55	65.5%	255	86	35
5. AIRS Input and Reporting	NETI/Air203	54	64.3%	157	66	33
5. Aggregate Plants	CARB/243	54	64.3%	279	84	23
6. Landfill Gas Control	CARB/285	53	63.1%	281	71	28
6. Intermediate Permitting	APTI/461	53	63.1%	324	143	52
6. Control of Gaseous Emissions	APTI/415	53	63.1%	391	169	74
7. Preparation of Emission Inventories	APTI/419	52	61.9%	186	96	54
7. Nitrogen Oxides Emission Control Technology	RACC (Level IV)	52	61.9%	279	104	29
7. Industrial Boilers	CARB/273	52	61.9%	316	127	55
7. Compliance Assurance (and Periodic) Monitoring	RACC (Level IV)	52	61.9%	269	112	37
7. Areas Source MACT Training	RACC (Level IV)	52	61.9%	291	112	30
Principles and Practice of Air Pollution Control	APTI/452	51	60.7%	326	146	67
8. Control of Nitrogen Oxides Emissions	APTI/418	51	60.7%	328	146	69
8. Stationary Reciprocating Engines	CARB/271	51	60.7%	266	104	44
8. Combustion Evaluation	APTI/427	51	60.7%	332	115	49
8. Advanced Inspection Techniques	APTI/455	51	60.7%	403	141	34
Monitoring and Evaluation of Toxic Air Pollutants	APTI/401	51	60.7%	158	69	22
9. Stationary Gas Turbines	CARB/272	50	59.5%	332	118	53
9. Baghouses	CARB/282	50	59.5%	270	95	33
9. Control Measures for CO, O3, and NOx	APTI/480	50	59.5%	316	118	42
9. Continuous Emission Monitoring	APTI/474	50	59.5%	237	85	25
10. Sources and Control of Volatile Organics	APTI/482	49	58.3%	280	96	34
10. Air Pollution Dispersion Models- Applications	APTI/423	49	58.3%	135	78	42
10. Industrial Boilers	CARB/273	49	58.3%	275	108	51

Training Needs for Potential New Training Topics

Question B. Using the list of <u>potential new training topics</u> below, indicate the number of staff you **project** will need these courses in **FY2005-FY2006** (October 2004 through September 2006). Enter the <u>total</u> number of staff likely to attend a training course in FY2005-FY2006. For each selected course, enter a number in each column to estimate the number of staff from your agency likely to attend regardless of where the course is taught (In State, In Region, or Out of Region).

There were 39 potential new topic areas identified, with five topics for Air Toxics and six topics for MACT Standards. Respondents could also specify Air Toxics, MACT Standards or Other topic(s).

The data indicates that the number of staff projected to attend the potential training decreases significantly if the course is not offered in state and is instead only available in the region or out of the region.

Projected Staff Needing Training for FY2005/2006 Potential New Training Topics

	Projected Attending						
Agency Type	If In State	If In Region	If Out of Region				
Local	1,025	602 (down 41.3%)	265 (down 74.1%)				
State	4,186	1,859 (down 55.6%)	651 (down 84.4%)				
Tribal	43	43 (same)	40 (down 7.0%)				
Total	5,254	2,504 (down 52.3%)	956 (down 81.8%)				

The table below indicates the top ten ranking for selected potential new topics, the percentage of state and local agencies that selected the course, and the projected number of staff.

- Nine of the top ten new topics listed in the FY2002/2003 survey results appear in the list of top courses for FY2005/2006. Regional Haze-Emissions Inventory dropped from the list and Air Toxics—Data Management is ranked as 10.
- 20 respondents specified "Other" potential new training topics as listed below:
 - Ambient Air Monitoring, QA for lab analysis, air toxics, and PM 2.5 and Ozone Monitoring Education
 - AP-4Z Emissions Calculations
 - CAFC
 - Class I Modeling (Calpuff Advanced)
 - Early Action Compacts
 - Environmental Management-Auditing Principles
 - Estimating Secondary Particulates
 - HH and HHH Oil and Gas MACT
 - Industrial Exhaust Capture System Inspection (APTI 345)
 - Inspection Report Writing
 - Legal Writing-Drafting Enforcement Documents

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- New Dispersion (AERMOD) Training
- NSPS Subpart OOO
- Practical application of modeling (Screen/AirMod)
- Regional Haze (Advanced)
- Regional Transport Rule
- Satellite Monitoring
- Section 185 (upwind state effect on downwind areas)
- Stack Testing/ VOC Measurement (Stack)
- Startup/Shutdown/Malfunction (SSM)
- Technical Writing
- Transportation Conformity
- Urban Shed Modeling

Top Ten Ranking for Potential New Training Topics Identified

n=84 (State and Local Responses only)

Course	No. of Responses Selecting	Percent Selecting	Projected Attending If In State	Projected Attending If In Region	Projected Attending If Out of Region
Permitting—NSR/PSD Principles for Permit Writers	56	66.7%	324	143	57
2. Air Toxics—Emissions Inventory	55	65.5%	207	80	28
MACT Standards— Industrial/Commercial/Institutional Boilers	54	64.3%	385	141	65
Best Available Control Technology (BACT)	54	64.3%	282	134	50
4. Air Toxics—Monitoring	51	60.7%	173	83	28
5. Air Toxics—Data Analysis	49	58.3%	110	70	34
Emission Inventory Development for PM2.5 with Emphasis on Area Sources	48	57.1%	120	72	33
MACT Standards—Municipal Solid Waste Landfills	48	57.1%	167	66	16
7. Emissions Inventory General	47	56.0%	126	62	26
7. Air Toxics—Modeling	47	56.0%	137	69	25
New National Ambient Air Quality Standards (NAAQS) Including Ozone and PM2.5	46	54.8%	136	76	29
9. New Source Review	44	52.4%	185	94	25
10. Air Toxics—Data Management	42	50.0%	89	55	24

Details of respondent data for potential new training topics, by Regional Consortia and EPA Region can be found in *Appendix E and F* with Tribal Responses in *Appendix G*.

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Air Toxics and MACTs Training Needs

The FY 2005/2006 survey specifically listed several Air Toxics and MACT Standards in the current classroom courses and potential new training topics questions. The results are summarized below.

Air Toxics and MACTs Current Classroom Courses Identified

n=84 (State and Local Responses only)

Course	Provider/ Course Number	No. of Responses Selecting	Percent Selecting	Projected Attending If In State	Projected Attending If In Region	Projected Attending If Out of Region				
Introduction to Hazardous Air Pollutants	APTI (400)	56	66.7%	371	166	61				
Areas Source MACT Training	RACC (Level IV)) 52 61.9% 291 112		_evel IV) 52 61.9% 291 112		.9% 291 112		52 61.9% 291 112		30
Dry Cleaning	CARB (287)	45	53.6%	201	77	31				
Solvent Cleaning	CARB (233)	43	51.2%	182	52	16				
Chrome Plating ATCM	CARB (290.1)	42	50.0%	170	59	12				
Secondary Aluminum MACT	NETI (AIR 126)	36	42.9%	184	66	28				
Pharmaceutical MACT	NETI (AIR125)	27	32.1%	160	59	21				
Dry Cleaners/California Certification Only	CARB	8	9.5%	10	4	1				

Air Toxics and MACTs Potential New Training Topics Identified

n=84 (State and Local Responses only)

Course	No. of Responses Selecting	Percent Selecting	Projected Attending If In State	Projected Attending If In Region	Projected Attending If Out of Region
Air Toxics—Emissions Inventory	55	65.5%	207	80	28
MACT Standards—Industrial/Commercial/Institutional Boilers	54	64.3%	385	141	65
Air Toxics—Monitoring	51	60.7%	173	83	28
Air Toxics—Data Analysis	49	58.3%	110	70	34
MACT Standards—Municipal Solid Waste Landfills	48	57.1%	167	66	16
Air Toxics—Modeling	47	56.0%	137	69	25
Air Toxics—Data Management	42	50.0%	89	55	24
MACT Standards—Miscellaneous Metal Parts	40	47.6%	229	79	27
MACT Standards—Miscellaneous Organic NESHAP (MON)	37	44.0%	233	80	26
MACT Standards—Boat Manufacturing	32	38.1%	129	54	13
MACT Standards—Plywood and Particle Board Manufacturing	28	33.3%	142	50	12
MACT Standards (Specify)	27	32.1%	90	34	12
Air Toxics—Other (Specify)	9	10.7%	55	10	5

STAPPA/ALAPCO FY 2005/2006 Training Needs Assessment Survey Final Report: March 2004 Specified potential new training topics for Air Toxics and MACT Standards are summarized below. Multiple responses for the same topic are indicated in parenthesis.

Air Toxics:

- Risk Assessment (2)
- Single Responses were provided for the following:
 - Ambient Air Monitoring
 - Federal Residual Risk Program Implementation
 - Risk Communications
 - Specialized ARB models used for risk assessment

MACT Standards:

- Combustion turbines/ Turbine MACT (2)
- Iron Foundries (3)
- Paper and Other Web Coatings (2)
- Reinforced Fiberglass/ Fiberglass and Composite Manufacturing (2)
- Reinforced Plastic Composites Production (2)
- RICE MACT (2)
- Single responses were provided for the following:
 - Auto and Light Duty Trucks
 - Boiler MACTS
 - Coke ovens
 - General Review
 - Iron/steel/integrated steel mill
 - Military MACT
 - Miscellaneous Coating MFG (HHHHHH)
 - MON
 - PAI
 - Reciprocating Combustion Engines
 - Refinery
 - Wood Furniture Manufacturing
 - Wood Furniture Refinishing
 - Wool Fiberglass

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Respondent Comments

Factors that Influence Training

Question C. What factors influence sending staff to training (i.e., costs, relevance of courses offered, staff development, staff shortages, staff turnover, travel restrictions, workloads)?

Comments were provided by 79 of the 88 respondents listing factors that influence training. The comments were reviewed and tabulated into the categories below. Additional individual factors are listed. In general, most respondents said cost of the training was a primary factor that influenced sending staff to training. Travel restrictions were listed as the second primary factor followed by relevance of courses and workloads. Travel restrictions seemed to be factors most when courses were offered out of state.

Factors that Influence Training

n = 79

Factors	No. Selecting	Percent of Total Responding
Costs/Budget Constraints	61	77.2%
Travel Restrictions/ Travel Costs/Location	51	64.6%
Relevance of Courses	48	60.8%
Workloads	41	51.9%
Staff Turnover	33	41.8%
Other	28	35.4%
Staff Development	23	29.1%
Staff Shortages	22	27.8%
Availability of Staff	5	6.3%
Timing/Availability of Courses vs. Needs	4	5.1%
New Regulations	2	2.5%

Additional comments beyond the list above follow:

- We also must have at least 6 weeks prior notice in order to process travel requests. Therefore advanced notice and publicity is imperative.
- Local accessibility, outside funding source, department view of external training value, need for training, expected projects.
- Attendance at out of state courses is limited to 2 people, unless the course is at EPA Region 7. Budget considerations at the present time prevent staff from flying to training at many locations--only less expensive training is encouraged.

- We treated this survey as a reasonable wish list, provided funding is available. Obviously the number of attendees and courses attended will need to be prioritized based on available funding.
- The two most important are: 1. Relevance. We don't want to send someone to a course if it is not going to help them do their job better. 2. Cost. Training costs are always very important, but now with state budgets being very tight, it is an even bigger constraint.
- We are mostly restricted to training east of the Mississippi River. Most staff has been here awhile and have taken the beginner and intermediate courses.
- Being in Hawaii, travel cost is a major factor in sending staff to training in the continental US. As such, only a few personnel are sent each year to mainland training courses and conferences. If a training course is held in Hawaii, the majority of the air staff would be attending depending on the applicability to their work. In order to accommodate the training needs of Hawaii's air program, we have contracted with private firms, CARB, WESTAR, for specific training courses in Hawaii using CAA 105 or program special funds.
- Staff turnover will dictate older, established baseline courses. Newer, up-to-date current courses will support staff development in the areas relevant to their duties.
- Training needs to be NO COST, only 1 person may attend with few exceptions, relevance of course to our work vs. travel restrictions, benefit to program, staff shortage, availability.
- Generally if courses are within driving distance we are much more likely to send staff. Staff turnover also limits the amount of training offered to new employees. However, should the agency have a definite training need we will send staff out of the region, thus the relevance of courses offered are important.
- Quality of training (in the past, CARB courses were very well done-lively presenters with real world experience and comprehensive written material). If the course is out of state, but within region and just one day, several of us can go. If course would involve overnight stay (within region but more than one day course), or far away (in region or out of region), only one person could go.
- Staff interest, in-state (out of state is hard), competing deadlines that are not met.
- Workload of a particular staff member may be a deterrent but we try and send a substitute.
- Critical needs.
- Curriculums cover too much technical info.
- Due to distance, instate travel can be a factor. Out of state travel restrictions limit the number of staff who may travel to any single course to 1. Relevant courses would be attended by larger numbers, particularly if 1 or 2 courses per year were scheduled.
- Travel restrictions occur for more than two people going to the same course.

- In Clark County training is viewed from the perspective of core training and optional training. Even though it is understood that "optional" training may actually be critical to some aspect of the Department's operations. For core training, many of the County guidelines on travel and training are waived. For optional training, we are typically limited to two individuals from the Department. This is the single largest limitation for us. The relevance of this policy to the information in this survey is that if a certain course is offered once a year and there are more than 2 staff who need the training, only 2 staff will be allowed to attend the training that year. If the course is offered 4 times in the same year, we would be able to send as many as 8 staff needing the training. There are other factors that influence sending staff for training: workloads are the second largest factor and budget also plays a role. For example, if there is 10-12 staff that needs a course and there is a provider who will bring the course to us, then the total training costs will typically be less to bring the trainer to us. The greatest driving forces for ongoing training needs include growth and turnover.
- If we can get training in our EPA region or the adjacent region (9), it saves us time and money.
- Money and time. Sole AQ person, can't leave.
- One region mentioned the location of course and staff turnover due to budget issues, and retirement/layoffs would be leading issues.
- Distance of the course including time gone.
- Section training requirement, experience of staff.
- Most of our staff have been on board for a few years and have gone through most of these courses. A refresher may be a great idea, but it is considered a luxury at this time.
- Travel costs (out of state more expensive than in state and high cost areas more expensive than outlying communities)
- Travel restrictions when using state funds. Overall state budget crisis. How critical the training is.
- Unknown budget restrictions, timing
- Programmatic requirements
- Interest of staff

Additional Comments

Question D. Do you have any additional comments or suggestions related to your agency's training needs?

The additional comments provided by 33 respondents are listed below. Comments generally fell into the categories of: delivery methods, additional training topics, agency-specific needs/issues, suggestions for improvement, and general. Specific comments follow.

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Delivery Methods

- Training needs to be delivered as efficiently as possible. More use of self-training (PCbased programs) and interactive web-based approaches should be explored. Classroom style with travel costs and time away from the job result in high cost and significant lost time. We need to become more efficient in the delivery of training.
- If funding is not provided, out of state travel is impossible. Develop web-based educational courses if possible.
- Training opportunities offered over the APTI satellite, or by web cast, have been well received. These training resources are most appropriate for current issues. I would like to see more use of the satellite and web cast services.

Additional Training Topics

- At this time we would especially like help training our staff (in state) on new MACT requirements and on Risk Communication and Risk Assessment.
- We would love to see fall protection training by an OSHA certified trainer.
- We need a course in VOC measurement based on agreed on techniques to measure total VOC not just carbon.
- Other general areas training is needed include data management that includes tools such as AMDAS, VOCDAT, UNMIX, PMF, etc., that are specific to Air Pollution data and training in work plan development, relevant and budget preparation and tracking, and fine particle and ozone regional air modeling.
- Training on enforcement of current and upcoming MACT standards at EPA headquarters would be good.
- Need a credible compilation of greenhouse gas emission factors. Need greenhouse gas emission inventory training.
- Greatest needs are in 3 areas: 1) CAM 2) Emissions and control device performance data analysis and interpretation (related to CAM and periodic monitoring); 3) NESHAPs (especially for the oil and gas industry, reciprocating engines, and boilers).
- Availability of the following courses would be useful: CARB 265, 266, 290.4, 325, 390; APTI 402, 421; NETI CST 105, 113, 125, 127, 202, 204, 211, 304, 309, AIR 203.

Agency-Specific Needs/Issues

- Tribal air people are overwhelmed and under funded, generally, so we believe it's important to provide as much help to tribal programs as possible. Tribal-specific workshops, similar to ITEPs, would help as well.
- Our office regulates parking supply and very basic air quality and noise pollution issues.
- We no longer have any contact with NYSECC. We respond only to complaints, releases, and open burning issues.

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Suggestions for Improvement

- APTI needs to address updating course material now!
- We need at least 30 days notice to process a duty assignment when an employee has to leave the city for training. Courses should be staggered evenly throughout the year.
- It would be helpful if there was one location on the internet where we could go to review a training calendar for ALL of the air protection related training courses. The EPA calendar is good, but I don't think it catches everything. It would be nice if we could send a list of preferred classes to someone (e.g., EPA or STAPPA) and then get notified sufficiently in advance when that class was going to be held somewhere.
- Supervisors suggested it would be helpful: 1) for agencies to be made aware of training opportunities at least 2 months in advance, 2) if funding were provided to cover at least a portion of travel expenses, and 3) and/or if more computer training courses were made available.
- It's important to try and find locations that are easily accessible to most of the country. Travel budgets are being hit hard and the easier and cheaper it is, the more likely an agency will be able to take advantage of the training.
- Try offering courses in Reading; it is more of a central location for the north state.

General

- I think this survey is thorough and valuable.
- If there is more turn over than expected, then more of the basic course will be needed. Course timing is important; if we have already worked our way through a new regulation on our own then there is less need to send someone for more training on that topic.
- Additional funding for training, especially non Section 105 (e.g., not requiring match or MOE) would be needed, especially for out of state travel to training.
- It is very difficult to send more than one person to training out of state at the same time. It is better to have several opportunities throughout the year and located throughout the country.
- More advanced courses are requested as most of the recent layoffs are recently hired staff. We have a multi-media agency so counts of air staff are not available.
- The two factors most influential in deciding what staff (and how many) to send to training are the cost (e.g., remote/distant locations are a problem) and the length of the training. One day training is more desirable because it helps control costs and reduces the commitment of staff. 3-5 day training is difficult to approve just based on staff commitment.
- There needs to be courses offered that apply to the Mobile Source concerns regarding vehicle emission testing. There needs to be a greater outreach by EPA to promote these training courses to upper department management as well as possibly providing a grant mechanism to minimize costs to the department, thus increasing the potential for larger numbers of employees to attend a training session together.

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- It is particularly important for our state to have in-state training opportunities, especially for basic-intermediate level courses.
- The Agency Profile/Staff numbers doesn't allow for the clearest picture, as we have only 15 staff members and most overlap on job duties.
- I appreciate the funds made available through LADCO for training being coordinated now. I am a bit disappointed with the APTI courses and breakdown of the satellite. It seems that downlink process is a resource that should be utilized much more often but the classes seem to be out of date. I am also a bit confused about the amount of money allocated and the context to which it is given to the training providers. I feel most staff never feel the effects of such training monies. Most of the basic training needs for our division are somewhat adequately met, but there is not only not enough money but also not enough time for staff to take training. With all the states in a tough financial position, staffs are already stressed out doing their job plus the job of other positions that have not been filled. We can have all the training resources at our fingertips, but the upper level management mandate for such training will most likely not happen. It will be said in the form of not enough funds or time, but it seems to be a lack of prioritizing training.
- There are several classes that Branch Managers here at the Division of Air thought overlapped. For those trainings, I entered the number of employees they expressed interest in sending to that particular training. However, they said that if they sent the desired number of employees to the training (e.g. APTI 455) then they would not want to send anyone to a training that they felt was the same (e.g. NETI CST309). Either/or data: Compliance Inspection: (5) (b & c) APTI 455 and NETI CST 309; (6) (b & c) APTI 445 and RACC Level II Control Technologies: (16) (a, b, & c) APTI 480, APTI 418, and RACC Level IV. Fundamentals of Air Pollution Control: (27) (b & c) APTI 452 and RACC Level I. Special note: Only 15 people in state for both classes were either or, only 10 people in and out of region for both classes were either or. Monitoring and Source Sampling: (31) (e & f) APTI 474 and RACC level II. The numbers for APTI 474 and RACC level II that are either or are 10, 8, and 4. The reason the numbers for RACC are higher is because some other branch managers were interested in sending their staff to that training. Permitting: (32 and 33) APTI 454, CARB 330, APRI 461, and CARB.
- Due to retirements, we have a new staff member in our lab that will need extensive training and we are interested in courses that will be related to ambient air monitoring, EPA requirements for analysis, Quality Assurance, air toxics, PM 2.5 and Ozone new standards or information.

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Appendix A. FY 2005/2006Training Needs Assessment Survey

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State and Territorial Air Pollution Program Administrators (STAPPA)

Association of Local Air Pollution Control Officials (ALAPCO)

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Note: The following training providers are referred to throughout this survey and their web sites with course descriptions are listed on the last page of the survey:

APTI EPA/Air Pollution Training Institute

NETI EPA/National Enforcement Training Institute OTAQ EPA/Office of Transportation and Air Quality

MEEA EPA/Midwest Environmental Enforcement Association
NEEP EPA/Northeast Environmental Enforcement Project
SEEN EPA/Southern Environmental Enforcement Network

WSP EPA/Western States Project CARB California Air Resources Board

RACC Rutgers University Air Compliance Center

Regional Consortia NESCAUM, MARAMA, METRO-4/SESARM, LADCO, CENSARA, WESTAR

A. Using the list of currently available <u>classroom</u> courses below, indicate the number of staff you **project** will need these courses in **FY2005-FY2006** (October 2004 through September 2006).

The courses are organized alphabetically within these topic areas:

- Air Toxics
- Basic Health and Safety
- Compliance Inspection
- Control Technologies
- Data Analysis, Quality Assurance and Reporting
- Emissions Inventory
- Enforcement

- Fundamentals of Air Quality Management
- Fundamentals of Air Pollution Control
- Mobile Sources
- Modeling
- Monitoring and Source Sampling
- Permitting
- Visible Emissions

Please enter the <u>total</u> number of staff likely to attend a training course in FY2005-2006. For each selected course, enter a number in each column, even if the number is zero. The *In State*, *In Region*, or *Out of Region* columns should enable you to estimate the number of staff from your agency likely to attend regardless of where the course is taught.

If multiple people are completing the survey, please do not duplicate counts in the numbers provided.

Example: If your agency would send 2 people to a course no matter where it is taught, enter "2, 2, 2". If 2 people need training, but can only attend if the course is offered in your state, enter '2, 0, 0". If 2 people need training and could attend if the course is offered in your state or in the region, enter "2, 2, 0".

				Number of Staff Lik to Attend in FY05-		,
Topic/Subtopic Area	Course Title	Provider (Course Number)	Duration (in days)	If In State	If In Region	Out of Region
AIR TOXICS (including MA	CT)					
(1) Air Toxics – Basic	(a) Dry Cleaning	CARB (287)	1.0			
(including MACT)	(b) Introduction to Hazardous Air Pollutants	APTI (400)	2.0			
	(c) Solvent Cleaning	CARB (233)	1.0		tend in FY	
(2) Air Toxics – Advanced	(a) Areas Source MACT Training	RACC (Level IV)	3.0			
(including MACT)	(b) Chrome Plating ATCM	CARB (290.1)	1.0			
	(c) Dry Cleaners/California Certification Only	CARB	1.0			
	(d) Pharmaceutical MACT	NETI (AIR125)	2.0			
	(e) Secondary Aluminum MACT	NETI (AIR 126)	1.0			

						er of Staff end in FY	
Topi	c/Subtopic Area	Course Title	Provider (Course Number)	Duration (in days)	If In State	If In Region	Out of Region
BAS	SIC HEALTH AND SAFETY						
(3)	Basic Health and Safety	(a) Advanced Safety	CARB (202)	1.0			
		(b) Basic Health and Safety for Field Activities	RACC (Level 1)	3.0			
		(c) Inspection Procedures and Safety	APTI (446)	2.0			
		(d) Inspector Safety	CARB (104)	0.5			
CON	MPLIANCE INSPECTION						
(4)	Inspection	(a) 100 Series	CARB (101-115)	5.0			
	Fundamentals	(b) Basic Inspector Course	NETI (CST109)	4.0			
		(c) Fundamentals of Enforcement	CARB (100)	3.0			
		(d) Fundamentals of Environmental Compliance Inspections	RACC (Level 1)	2.0			
		(e) Inspection of Particle Control Devices	RACC (Level 2)	3.0			
		(f) Overview of Clean Air Act Amendment 1990	RACC (Level 1)	1.0			
(5)	Advanced Inspection	(a) Inspection of Gas Control and Selected Industries	RACC (Level IV)	2.0			
		(b) Advanced Inspection Techniques	APTI (455)	3.0			
		(c) Advanced Inspector Training	NETI (CST309)	3.0			
(6)	Baseline Source	(a) Basic Air Pollution Control Equipment	CARB (107)	0.5			
	Inspection Techniques	(b) Baseline Source Inspection	APTI (445)	3.5			
		(c) Baseline Source Inspection Techniques	RACC (Level II)	3.0			
		(d) Emission Capture and Gas Handling System Inspection	APTI (345)	3.0			
(7)	Combustion Evaluation	(a) Combustion Evaluation	APTI (427)	4.5			
		(b) Combustion Source Inspection	RACC (Level III)	3.0			
		(c) Industrial Boilers	CARB (273)	1.0			
		(d) Stationary Reciprocating Engines	CARB (271)	1.0			
(8)	Compliance Assurance	(a) Compliance Assurance (and Periodic) Monitoring	RACC (Level IV)	2.0			
	Monitoring (CAM)	(b) Monitoring Compliance Test and Source Test Observation	APTI (468)	4.0			
(9)	National Emission Standards for	(a) Asbestos NESHAP Inspection and Safety Procedures	APTI (350)	3.0			
	Hazardous Air Pollutants (NESHAP)	(b) Asbestos D/R	CARB (251)	1.0			
(10)	VOC Sampling and	(a) Aerospace Industry	CARB (230.1)	1.0			
	Analysis	(b) Auto Refinishing	CARB (230.2)	1.0			
		(c) Metal Container, Closure and Coil Coating	CARB (230.3)	1.0			
		(d) General VOC Source Regulation and Inspection	RACC (Level III)	3.0			
		(e) Graphic Arts	CARB (230.4)	1.0			
		(f) Fugitive Source Inspection	APTI (380)	3.0			
		(g) Fugitive VOC Leak Detection	APTI (456)	2.0			

FY2005-2006 STAPPA/ALAPCO Training Needs Assessment Survey

						er of Staf tend in F\	
Topic/Subtopic Area		Course Title	Provider (Course Number)	Duration (in days)	If In State	If In	Out of Region
(10) VOC Sampli Analysis	ng and	(h) Inspection Techniques for Fugitive VOC Emission Sources	RACC (Level III)	2.0			
		(i) Metal Parts and Products	CARB (230)	1.0			
		(j) Surface Coasting Sampling, Transport, and VOC Content Calculations	RACC (Level IV)	2.5			
		(k) VOC Inspections	CARB (262)	1.0			
		() VOC Sampling and Analysis	RACC (Level II)	2.0			
(11) Gasoline Distri	bution	(a) Air to Liquid Ratio Testing	CARB (264)	1.0			
and Marketing		(b) Gasoline Cargo Tanks	CARB (210)	1.0			
		(c) Gasoline Facilities Phase I and II	CARB (263)	1.0			
		(d) Oil Field Production	CARB (260)	1.0			
		(e) Petroleum Refining	CARB (288)	1.0			
(12) Gasoline Facili	ties	(a) Gasoline Facilities (Vapor Recovery)	CARB	3.0			
CONTROL TECHNO	DLOGIES						
(13) Control of Gase	eous	(a) Control of Gaseous Emissions	APTI (415)	4.0			
Emissions		(b) Hazardous Waste Incineration	APTI (502)	3.0			
		(c) Incinerators	CARB (270)	1.0			
		(d) Industrial Boilers	CARB (273)	1.0			
		(e) Landfill Gas Control	CARB (285)	1.0			
		(f) Nitrogen Oxides Emission Control Technology	RACC (Level IV)	2.0			
		(g) Polyester Resin and Fiberglass	CARB (261)	1.0			
		(h) Soil Decontamination	CARB (283)	1.0			
		(i) Stationary Gas Turbines	CARB (272)	1.0			
		(j) VOC Control Devices	CARB (284)	1.0			
(14) Control of Parti	culate	(a) Aggregate Plants	CARB (243)	1.0			
Emissions		(b) Baghouses	CARB (282)	1.0			
		(c) Cement Plants	CARB (245)	1.0			
		(d) Concrete Batch Plants	CARB (244)	1.0			
		(e) Control of Particulate Emissions	APTI (413)	4.0			
		(f) ESPs	CARB (281)	1.0			
		(g) Hot Mix Asphalt Facilities	CARB (242)	1.0			
(15) Hazardous Air Pollutants		(a) Accident and Emergency Management	APTI (503)	3.0			
(16) NO _X Control		(a) Control Measures for CO, O3, and NOx	APTI (480)	1.5			
Technology		(b) Control of Nitrogen Oxides Emissions	APTI (418)	3.0			
		(c) NO _X Emissions Control	RACC (Level IV)	2.0			
(17) VOC RACT		(a) Fugitive VOC Leak Detection	APTI (456)	1.0			
		(b) Sources and Control of Volatile Organics	APTI (482)	4.0			
		(c) VOC Control Devices/Scrubbers	CARB (284)	1.0			

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Topi	c/Subtopic Area	Course Title	Provider (Course Number)	Duration (in days)	If In State	If In Region	Out of Region
DAT	A ANALYSIS, QUALITY AS	SSURANCE AND REPORTING					
(18)	Analytical Methods	(a) Air Pollution Microscopy	APTI (420)	3.0			
		(b) Analytical Methods for Air Quality Standards	APTI (464)	5.0			
		(c) Hazardous Waste Calculations Workshop	APTI (458)	1.5			
		(d) Statistical Analysis and Interpretation of Data for Hazardous Air Pollutants	APTI (403)	2.0			
		(e) Statistical Evaluation Methods for Air Pollution Data	APTI (426)	3.0			
(19)		(a) ACTS/NARS Training	NETI (AIR223)	2.0			
	Reporting	(b) AIRS Input and Reporting	NETI (AIR203)	3.0			
		(c) AIRS Input and Reporting Refresher	NETI (303)	0.5			
(20)	Quality Assurance	(a) Quality Assurance for Air Pollution Measurement Systems	APTI (470)	4.0			
EMI	SSIONS INVENTORY						
	Emissions Inventory	(a) Preparation of Emission Inventories	APTI (419)	4.0			_
ENF	ORCEMENT						
(22)	Enforcement Fundamentals	(a) Air Pollution Field Enforcement	APRI (444)	3.5			
	Fundamentals	(b) Enforcement Teamwork: Regulations to Resolutions	NETI (CST208)	5.0			
		(c) Fundamentals of Enforcement	CARB (100)	3.0			
(23)	Advanced Enforcement	(a) Symposium	CARB (300)	4.0			
(24)	Criminal Enforcement	(a) Basic Criminal Environmental Investigations	NETI/MEEA (CRM105)	5.0			
		(b) Basic Environmental Enforcement Training	NETI/NEEP (CRM106)	4.0			
		(c) Basic Environmental Investigations Training	NETI/WSP (CRM108)	3.0			
		(d) Basic Environmental Investigations Training	NETI/SEEN (CRM113)	4.0			
		(e) Criminal Environmental Enforcement for Regulators	NETI (CRM104)	4.0			
(25)	Enforcement Case	(a) Administrative Hearings and Trials	NETI (CST207)	2.0			
	Development	(b) Advanced Administrative Practice Institute	NETI (CST302)	2.0			
		(c) Advanced Negotiation Skills	NETIW (CST204)	2.0			
		(d) Basic ABEL	NETI (CST101)	1.0			
		(e) Basic BEN	NETI (CST103)	1.0			
		(f) Basic INDIPAY	NETI (CST114)	1.0			
		(g) Basic MUNIPAY	NETI (CST115)	1.0			
(25)	Enforcement Case Development	(h) Basic PROJECT Training (SEP Analysis)	NETI (CST116)	1.0			
	Development	(i) Intermediate Ability to Pay	NETI (CST 201)	3.0			
		(j) Interviewing Techniques for Regulators	NETI/MEAA (CST111)	1.0			

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					Number of Staff Likely to Attend in FY05-06		
Topic/Subtopic Area		Course Title	Provider (Course Number)	Duration (in days)	If In State	If In Region	Out of Region
		(k) Mutual Settlement Workshop	CARB (350)	1.0			
		() NSR/PSD Case Development	CARB (325)	3.0			
		(m) Pleading and Litigating Civil Penalties	NETI (CST303)	1.0			
(26)	Multi-Media Enforcement	(a) Basic Multi-Media Inspector Academy	CARB (310)	10.0			
		(b) Multi-Media Inspections	NETI (MLS102)	3.0			
		(c) Multi-Media Training for Regulators	NET (MLS103)	3.0			
		(d) Multi-Media Enforcement Symposium	CARB (300)	4.0			
		(e) Principles of Environmental Compliance and Enforcement	CARB	3.0			
FUN	DAMENTALS OF AIR POL	LUTION CONTROL					
(27)	Fundamentals of Air Pollution Control	(a) 100 Series	CARB (101-115)	5.0			
		(b) Principles and Practice of Air Pollution Control	APTI (452)	3.5			
		(c) Principles and Practice of Air Pollution Control	RACC (Level 1)	4.0			
MOE	BILE SOURCES						
(28)	Motor Vehicles Fuel Quality Inspection	(a) Motor Vehicles Fuel Quality Inspection	OTAQ				
(29)	Vehicle Emissions	(a) Vehicle Emissions Technician's Course	OTAQ				
MOE	DELING						
(30)	Air Pollution Dispersion Models	(a) Air Pollution Dispersion Models-Applications	APTI (423)	3.0			
		(b) Introduction to Receptor Modeling Workshop	APTI (424)	4.0			
MON	NITORING AND SOURCE S	SAMPLING					
(31)	Monitoring and Source Sampling	(a) Advanced Continuous Emission Monitoring	CARB (222)	1.0			
		(b) Air Quality Monitoring Concepts	CARB (114)	0.5			
		(c) Atmospheric Sampling	APTI (435)	5.0 (lab)			
		(d) Compliance Assurance Monitoring	RACC (Level IV)	2.0			
		(e) Continuous Emission Monitoring	APTI (474)	4.0			
		(f) Continuous Emissions Monitoring Systems	RACC (Level II)	2.0			
		(g) Evaluation of Stationary Source Emission Capture, Transport, and Testing Systems	RACC (Level 2)	4.0			
		(h) Monitoring and Evaluation of Toxic Air Pollutants	APTI (401)	4.0			
		(i) Observing Source Tests	CARB (224)	1.0			
		(j) Principles of Ambient Air Monitoring	CARB (222)	1.0			
		(k) Source Sampling for Pollutants	APTI (450)	5.0 (lab)			
		() Optical Remote Sensing – UVDOAS	NETI (AIR201)	3.0			
PER	MITTING						
(32)	Permitting—Basic	(a) Effective Permit Writing	APTI (454)	4.0			
		(b) Permitting Staff Development Workshop	CARB (330)	2.0			
(33)	Permitting— Intermediate	(a) Intermediate Permitting	APTI (461)	4.0			
		(b) Effective Permit Writing	CARB	3.0			

					er of Staff end in FY	
Topic/Subtopic Area	Course Title	Provider (Course Number)	Duration (in days)	If In State	If In Region	Out of Region
VISIBLE EMISSIONS						
(34) Visible Emission	(a) Fundamentals of Enforcement	CARB (100)	3.0			
Enforcement	(b) Night Certification in VEE	CARB (100.2)	0.5			
	(c) Re-certification in VEE	CARB (100.1)	1.0			
	(d) VEE Instructors Workshop	APTI/CARB	3.5			

B. Using the list of <u>potential new training topics</u> below, indicate the number of staff you **project** will need training in these topic areas in **FY2005-FY2006** (October 2004 through September 2006).

Please enter the <u>total</u> number of staff likely to attend a training course (if offered) in FY2005-2006. The *In State, In Region*, or *Out of Region* columns should enable you to estimate the number of staff from your agency likely to attend regardless of where the course is taught.

If multiple people are completing the survey, please do not duplicate counts in the numbers provided.

Example: If your agency would send 2 people to a course no matter where it is taught, enter "2, 2, 2". If 2 people need training, but can only attend if the course is offered in your state, enter '2, 0, 0". If 2 people need training and could attend if the course is offered in your state or in the region, enter "2, 2, 0".

			er of Staff Li end in FY05	
Pote	ntial New Topic Areas	If In State	If In Region	If Out of Region
AIR	TOXICS (including MACT)			
(1)	Air Toxics—Emissions Inventory			
(2)	Air Toxics—Modeling			
(3)	Air Toxics—Monitoring			
(4)	Air Toxics—Data Analysis			
(5)	Air Toxics—Data Management			
(6)	Air Toxics—Other(s) (Specify)			
(7)	MACT Standards—Industrial/Commercial/Institutional Boilers			
(8)	MACT Standards—Miscellaneous Metal Parts			
(9)	MACT Standards—Miscellaneous Organic NESHAP (MON)			
(10)	MACT Standards—Plywood and Particle Board Manufacturing			
(11)	MACT Standards—Municipal Solid Waste Landfills			
(12)	MACT Standards—Boat Manufacturing			

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		er of Staff L end in FY05	
Potential New Topic Areas	If In State	If In Region	If Out of Region
(13) MACT Standards—Other(s) (Specify)		•	
DATA ANALYSIS, QUALITY ASSURANCE AND REPORTING			
(14) Regional Haze – Data Analysis (Basic)			
(15) Regional Haze – Data Analysis (Advanced)			
EMISSIONS INVENTORY			
(16) Emissions Inventory—General			
(17) Emission Inventory Development for PM _{2.5} with Emphasis on Area Sources			
(18) Greenhouse Gas Reduction Strategies			
(19) Market-Based Incentives and Emission Trading Program			
(20) Regional Haze – Emissions Inventory			
FUNDAMENTALS OF AIR POLLUTION CONTROL			
(21) Best Available Control Technology (BACT)			
MOBILE SOURCES			
(22) Mobile Sources—Automotive Technology/Formation and Abatement of Automotive Emission:	S		
(23) Mobile Sources—Conformity			
(24) Mobile Sources—Inspection and Maintenance (I&M) Techniques			
(25) Mobile Sources—Introduction and Overview of Motor Vehicle Air Pollution			
(26) Mobile Sources—Quality Assurance for I&M			
(27) Mobile Sources—Transportation Control Strategies/TEA21 Act			
MODELING			
(28) Regional Haze – Modeling			
MONITORING AND SOURCE SAMPLING			
(29) New National Ambient Air Quality Standards (NAAQS) Including Ozone and PM _{2.5}			
(30) New Source Review			
(31) New Source Performance Standards (NSPS) Development			
(32) PM _{2.5} Monitoring, QA/QC, and Laboratory Operations			
(33) PM _{2.5} SIP Development Requirements, Timelines, and Procedures			
(34) Regional Haze – Speciation Monitoring			
PERMITTING			
(35) Permitting—NSR/PSD Principles for Permit Writers			
(36) Permitting—Harmonized Energy/Climate Change Strategies for Permit Writers			

		Numbe Att	er of Staff L end in FY0!	ikely to 5-06
	ential New Topic Areas	If In State	If In Region	If Out of Region
OTH	Regional Transport Fundamentals and Emission Management Strategies			
	Risk Assessment Procedures			
	Risk Management Methodologies and Policies			
	Risk Communication Techniques			
	Supplemental Environmental Projects			
	Other(s) (Specify)			
C.	What factors influence sending staff to training (i.e., costs, relevance development, staff shortages, staff turnover, travel restrictions, workloads)?		rses offe	red, stafi
D.	Do you have any additional comments or suggestions related to your agend note space is provided in Question B. to list new training topics.)	cy's trainir	ng needs'	 ? (Please

FY2005-2006 STAPPA/ALAPCO Training Needs Assessment Survey

Updated information on available courses/workshops is posted on the web sites listed below:

EPA Training Programs

EPA/Air Pollution Training Institute (APTI)

EPA/Midwest Environmental Enforcement Association

EPA/National Enforcement Training Institute (NETI)

EPA/Northeast Environmental Enforcement Project

EPA/Office of Mobile Resources

EPA/Southern Environmental Enforcement Network

EPA/Western States Project

http://www.epa.gov/oar/oaqps/eog/apticat.html
http://www.regionalassociations.org/info.cfm

http://epa.gov/compliance/training/neti/

http://www.state.nj.us/lps/dcj/neep.htm

http://www.epa.gov/oms

http://www.regionalassociations.org/info.cfm

http://www.regionalassociations.org/info.cfm

Training Providers

California Air Resources Board (CARB)

Rutgers University Air Compliance Center (RACC)

Northeast States for Coordinated Air Use Management

Mid-Atlantic Regional Air Management Association METRO-4/ Southeastern States Air Resources Agencies)

Lake Michigan Air Directors Consortium (LADCO)

Central States Air Resources Agencies (CENSARA)

Western States Air Resources Council (WESTAR)

http://www.arb.ca.gov/cd/training.htm

http://www.envsci.rutgers.edu/org/racc

http://www.nescaum.org

http://www.marama.org

http://www.metro4.org

http://www.ladco.org

http://www.censara.org

http://www.westar.org

APTI Training Centers

California Polytechnic State University

Rutgers Air Pollution Training Program

University of Cincinnati Environmental Training Institute

University of Illinois at Chicago

University of Texas at Arlington

Southwest Environmental Education Training Center

http://ceenve.calpoly.edu/cota/epa

http://envsci.rutgers.edu/orga/raptp/index.html

http://www.uc.edu/eti/

http://www.uic.edu/sph/glakes/ce/

http://uta.edu/sweetcenter/

You may keep this page for easy reference.

Please complete this training needs assessment survey and return to Amy Royden of STAPPA/ALAPCO via e-mail (aroyden@4cleanair.org) or fax (202/624-7863) by October 31, 2003. If sending by email, please print and fax page 1 of the survey with the signature requested (no cover page is necessary).

Thank you.

Appendix B. Current Classroom Courses - by Agency Type & Regional Consortia

		No. Se	lecting (Course	Pro	jected Atte	ndees			Rea	ional Consor	tia		
Course	Provider/ Course Number	Total		01-1-	In	In	Out of	n WESTAR CenSARA LADCO MARAMA 4 54 15 10 6 9 42 16 10 5 9 41 15 11 5 8 61 14 11 5 8 36 11 13 7 6 35 14 10 5 9 23 16 9 4 9 33 14 9 6 7 74 11 10 5 8 28 14 9 6 5 52 12 8 7 8 30 14 11 5 7 37 13 9 5 8 55 13 9 4 8 34 12 10 4 8 34 13 7 7 9 49 <th>NEGOALIN</th> <th>Name</th>					NEGOALIN	Name
Control of Particulate Emissions	APTI (413)	Total 60	Local 27	State 33	State 382	Region 146	Region 54					12	NESCAUM 7	None
Hot Mix Asphalt Facilities	CARB (242)	60	28	32	305	93						12	7	1
VOC Control Devices	CARB (284)	57	26	31	361	132						11	6	1
Introduction to Hazardous Air Pollutants	APTI (400)	56	28	28	371	166	61					12	5	1
Monitoring Compliance Test and Source Test Observation	APTI (468)	56	29	27	208	85	36		13			13	6	
Concrete Batch Plants	CARB (244)	55	26	29	255	86	35		_	5	_	9	7	1
Aggregate Plants	CARB (243)	54	24	30	279	84	23					8	7	1
33 - 3						-	-	-						
AIRS Input and Reporting	NETI (AIR203)	54	27	27	157	66	33	14	9	6	7	12	5	1
Control of Gaseous Emissions	APTI (415)	53	23	30	391	169	74	11	10	5	8	12	5	2
Landfill Gas Control	CARB (285)	53	25	28	281	71	28	14	9	6	5	10	8	1
Intermediate Permitting	APTI (461)	53	26	27	324	143	52	12	8	7	8	13	4	1
Areas Source MACT Training	RACC (Level IV)	52	26	26	291	112	30	14	11	5	7	9	6	
Compliance Assurance (and Periodic) Monitoring	RACC (Level IV)	52	23	29	269	112	37	13	9	5	8	10	7	
Industrial Boilers	CARB (273)	52	24	28	316	127	55	13	9	4	8	12	5	1
Nitrogen Oxides Emission Control Technology	RACC (Level IV)	52	21	31	279	104	29	10	10	5	8	10	7	2
Preparation of Emission Inventories	APTI (419)	52	22	30	186	96	54	12	10	4	8	12	5	1
Advanced Inspection Techniques	APTI (455)	51	25	26	403	141	34	13	-		-	12	3	
Combustion Evaluation	APTI (427)	51	18	33	332	115	49		_			11	5	1
Stationary Reciprocating Engines	CARB (271)	51	20	31	266	104	44		-			10	7	
Control of Nitrogen Oxides Emissions	APTI (418)	51	21	30	328	146	69	9	9	5	8	12	6	2
Principles and Practice of Air Pollution Control	APTI (452)	51	22	29	326	146	67	9	11	5	8	11	5	2
Monitoring and Evaluation of Toxic Air Pollutants	APTI (401)	51	23	28	158	69	22	12	9	4	7	11	6	2
Stationary Gas Turbines	CARB (272)	50	20	30	332	118	53	14	8	3	7	10	7	1
Baghouses	CARB (282)	50	25	25	270	95	33	12	11	3	8	10	5	1
Control Measures for CO, O3, and NOx	APTI (480)	50	22	28	316	118	42	9	7	6	8	10	8	2
Continuous Emission Monitoring	APTI (474)	50	21	29	237	85	25	10	8	6	8	11	5	2
Industrial Boilers	CARB (273)	49	22	27	275	108	51	13	8	3	9	9	6	1

Appendix B. Current Classroom Courses by Agency Type & Regional Consortia

		No. Se	electing (Course	Pro	jected Atte	endees			Rea	ional Consor	tia		
Course	Provider/ Course Number	Total	Local	State	In State	In	Out of	WESTAR	CenSARA	LADCO	MARAMA	METRO-	NESCAUM	None
Course	Course Number	TOtal	LOCAL	State	State	Region	Region	WESTAR	Censara	LADCO	WAKAWA	4	NESCAUM	None
Sources and Control of Volatile Organics	APTI (482)	49	22	27	280	96	34	9	11	5	8	11	4	1
Air Pollution Dispersion Models-Applications	APTI (423)	49	21	28	135	78	42	10	8	2	7	14	6	2
Baseline Source Inspection	APTI (445)	48	23	25	207	67	28	11	10	4	8	12	3	
Quality Assurance for Air Pollution														
Measurement Systems	APTI (470)	48	21	27	148	70	33	9	8	5	7	12	6	1
Observing Source Tests	CARB (224)	48	25	23	225	79	36	10	10	7	7	11	3	
Effective Permit Writing	APTI (454)	48	23	25	304	122	40	10	8	7	8	10	4	1
Inspection Procedures and Safety	APTI (446)	47	22	25	434	156	34	8	10	7	7	10	4	1
NOV Entire Control	DACC (Lavial IV)	40	00	00	000	0.4	20	0	0	4	0	7		
NOX Emissions Control	RACC (Level IV)	46	20	26	220	94	32	9	8	4	8	7	8	2
100 Series	CARB (101-115)	46	21	25	182	68	18	13	8	3	7	10	4	1
Dry Cleaning	CARB (287)	45	23	22	201	77	31	13	5	5	7	10	5	'
General VOC Source Regulation and	071112 (201)	10	20		201		01	10	Ŭ.		,	10	<u> </u>	
Inspection	RACC (Level III)	45	22	23	327	127	17	7	10	4	8	10	5	1
·	, i													
Basic Inspector Course	NETI (CST109)	44	22	22	182	69	22	10	8	6	9	7	3	1
Fundamentals of Enforcement	CARB (100)	44	23	21	208	56	19	14	8	3	8	7	3	1
Advanced Inspector Training	NETI (CST309)	44	21	23	353	159	41	12	8	6	9	6	2	1
Solvent Cleaning	CARB (233)	43	22	21	182	52	16	9	9	5	6	8	6	
100 Series	CARB (101-115)	43	19	24	239	65	20	12	10	3	7	9	2	
Chrome Plating ATCM	CARB (290.1)	42	20	22	170	59	12	9	7	4	6	11	5	
Inspection of Particle Control Devices	RACC (Level 2)	42	21	21	178	51	13	11	7	4	7	8	4	1
Basic Air Pollution Control Equipment	CARB (107)	42	22	20	165	44	8	11	7	3	6	10	4	1
Gasoline Facilities Phase I and II	CARB (263)	42	25	17	197	49	10	14	7	2	6	6	7	
Statistical Evaluation Methods for Air														
Pollution Data	APTI (426)	42	17	25	139	64	32	6	8	4	7	10	5	2
Fundamentals of Enforcement	CARB (100)	42	24	18	192	59	19	12	7	3	8	9	2	1
Inspector Safety	CARB (104)	41	21	20	263	122	9	11	7	4	6	9	3	1
Cement Plants	CARB (245)	41	16	25	206	57	14	10	7	3	8	8	4	1
ESPs	CARB (281)	41	17	24	231	82	25	8	7	5	8	9	3	1
Continuous Emissions Monitoring Systems	APTI (450)	41	17 20	24 21	168	63 54	25 15	9 7	8 7	6	7	•	3	1
Source Sampling for Pollutants (Lab)	APTI (400)	41	20	21	128	54	15		/	б	б	10	4	1
Emission Capture and Gas Handling System Inspection	APTI (345)	40	20	20	148	34	7	10	8	2	7	9	4	

Appendix B. Current Classroom Courses by Agency Type & Regional Consortia

		No. Se	lecting (Course	Pro	jected Atte	ndees			Regi	ional Consor			
	Provider/				In	_ In	Out of					METRO-		
Course	Course Number	Total	Local	State	State	Region	Region	WESTAR	CenSARA	LADCO	MARAMA	4	NESCAUM	None
Combustion Source Inspection	RACC (Level III)	40	20	20	227	55	21	11	7	2	9	9	2	
Fugitive Source Inspection	APTI (380)	40	20	20	170	45	20	9	6	4	8	9	4	
VOC Inspections	CARB (262)	40	21	19	238	121	11	10	7	3	9	7	4	
Incinerators	CARB (270)	40	17	23	232	90	40	12	5	4	6	8	4	1
Polyester Resin and Fiberglass	CARB (261)	40	21	19	189	60	21	10	7	4	6	8	5	
AIRS Input and Reporting Refresher	NETI (303)	40	17	23	90	49	18	9	10	3	7	7	4	
Asbestos NESHAP Inspection and Safety														
Procedures	APTI (350)	39	23	16	127	43	10	10	6	5	5	9	2	2
Fugitive VOC Leak Detection	APTI (456)	39	18	21	173	47	22	8	7	4	8	8	4	
Gasoline Facilities (Vapor Recovery)	CARB	39	21	18	216	73	24	9	7	4	7	8	4	
Statistical Analysis and Interpretation of Data for Hazardous Air Pollutants	APTI (403)	39	17	22	110	46	26	5	7	4	7	9	5	2
Air Pollution Field Enforcement	APRI (444)	39	19	20	282	69	29	7	5	5	8	10	2	2
Advanced Continuous Emission Monitoring	CARB (222)	39	15	24	158	61	13	7	5	5	6	8	7	1
Basic Health and Safety for Field Activities	RACC (Level 1)	38	17	21	270	123	10	7	8	4	7	7	4	1
Fundamentals of Environmental Compliance Inspections	RACC (Level 1)	38	17	21	178	58	14	9	6	4	8	5	5	1
VOC Control Devices/Scrubbers	CARB (284)	38	16	22	215	86	27	8	8	3	8	6	4	1
Effective Permit Writing	CARB	38	19	19	203	87	24	9	5	3	8	7	5	1
Secondary Aluminum MACT	NETI (AIR 126)	36	13	23	184	66	28	4	8	6	6	9	3	
Compliance Assurance Monitoring	RACC (Level IV)	36	15	21	128	63	19	7	5	3	7	8	6	
Permitting Staff Development Workshop	CARB (330)	36	18	18	165	72	24	8	6	6	6	3	6	1
Baseline Source Inspection Techniques	RACC (Level II)	35	17	18	136	50	11	8	8	2	8	7	2	
Metal Parts and Products	CARB (230)	35	16	19	203	112	12	7	5	4	8	7	4	
Soil Decontamination	CARB (283)	35	16	19	168	35	10	12	4	3	6	6	4	
Fugitive VOC Leak Detection	APTI (456)	35	17	18	140	44	10	9	4	4	7	6	5	
Advanced Safety	CARB (202)	34	16	18	266	114	8	9	5	3	6	6	4	1
Asbestos D/R	CARB (251)	34	20	14	124	28	6	12	5	5	3	6	1	2
Inspection Techniques for Fugitive VOC Emission Sources	RACC (Level III)	34	15	19	151	45	8	5	7	3	8	7	4	
Administrative Hearings and Trials	NETI (CST207)	34	14	20	158	38	12	8	5	1	8	8	3	1
Air Quality Monitoring Concepts	CARB (114)	34	16	18	130	40	10	8	5	3	3	7	6	2
Principles of Ambient Air Monitoring	CARB (222)	34	15	19	112	47	15	6	8	3	5	8	4	
Inspection of Gas Control and Selected Industries	RACC (Level IV)	33	16	17	147	34	13	7	5	4	8	7	2	
Graphic Arts	CARB (230.4)	33	16	17	124	32	3	6	5	2	7	9	4	
Analytical Methods for Air Quality Standards	APTI (464)	33	14	19	108	47	25	5	5	3	6	8	4	2

Appendix B. Current Classroom Courses by Agency Type & Regional Consortia

		No. Se	electing (Course	Pro	jected Atte	ndees			Reg	ional Consor	tia		
	Provider/				ln	_ In	Out of					METRO-		
Course Introduction to Receptor Modeling	Course Number	Total	Local	State	State	Region	Region	WESTAR	CenSARA	LADCO	MARAMA	4	NESCAUM	None
Workshop	APTI (424)	33	14	19	72	46	20	7	6	1	6	7	5	1
Auto Refinishing	CARB (230.2)	32	19	13	108	25	2	11	5	2	7	3	3	1
Surface Coasting Sampling, Transport, and														
VOC Content Calculations	RACC (Level IV)	32	18	14	106	35	10	6	6	4	7	7	2	
Symposium	CARB (300)	32	16	16	84	33	11	9	6	2	6	5	4	
NSR/PSD Case Development	CARB (325)	32	18	14	123	32	5	7	6	3	6	8	2	
Principles and Practice of Air Pollution														
Control	RACC (Level 1)	32	10	22	141	56	20	7	4	3	7	5	4	2
Basis Fasins assessed Fafores asset Training	NETI/NEEP	0.4	47	4.4	404	0.7	0			,	_	7	0	
Basic Environmental Enforcement Training	(CRM106)	31 29	17	14	131 92	37 32	8 16	6	5	4	5	7 8	3	1
VOC Sampling and Analysis Air to Liquid Ratio Testing	CARB (264)	29	15 19	10	116	32	5	7	3	4	6	4	5	
Hazardous Waste Incineration	APTI (502)	29	7	22	191	48	16	4	3	3	6	6	4	2
Accident and Emergency Management	APTI (503)	29	16	13	171	98	8	7	3	3	6	7	2	1
Accident and Emergency Management	NETI/WSP	23	10	13	171	90	0	1	3	3	U		2	
Basic Environmental Investigations Training	(CRM108)	28	13	15	130	35	8	7	2	3	5	8	2	1
Basis Environmental investigations Training	NETI/MEAA		10	10	100	00						•		
Interviewing Techniques for Regulators	(CST111)	28	12	16	140	45	21	6	3	3	6	6	4	
Pharmaceutical MACT	NETI (AIR125)	27	8	19	160	59	21	3	7	4	6	2	4	1
Gasoline Cargo Tanks	CARB (210)	27	13	14	72	33	4	6	3		6	5	7	
Atmospheric Sampling (Lab)	APTI (435)	27	11	16	117	28	10	7	2	3	6	6	3	
Evaluation of Stationary Source Emission														
Capture, Transport, and Testing Systems	RACC (Level 2)	27	14	13	87	28	11	5	3	4	5	7	3	
Air Pollution Microscopy	APTI (420)	26	17	9	45	23	13	5	2	2	4	10	2	1
5 . 6	NETI/MEEA	00	40	4.0	0.4.0	00	4	_				•		
Basic Criminal Environmental Investigations Basic BEN	(CRM105)	26 26	13	13 16	218 71	92 20	6	5 7	3	3	6 5	8	2	1
	NETI (CST103)	26	10	16	71	20	Ь	1	3	3	5	4	4	
Enforcement Teamwork: Regulations to Resolutions	NETI (CST208)	25	13	12	185	125	25	6	3	1	7	5	2	1
Advanced Negotiation Skills	NETI (CST204)	25	12	13	110	38	10	8	2	1	6	5	3	<u>'</u>
Metal Container, Closure and Coil Coating	CARB (230.3)	24	11	13	169	89	3	6	3	2	6	5	2	
,	, in the second													
ACTS/NARS Training	NETI (AIR223)	24	13	11	71	28	14	5	5	4	4	5	1	
Pagia Environmental Investigations Training	NETI/SEEN	24	11	40	112	32	8	r	2	2	6	7	1	1
Basic Environmental Investigations Training Mutual Settlement Workshop	(CRM113) CARB (350)	23	11	13	51	28	5	5 7	4	1	5	3	3	1
Pleading and Litigating Civil Penalties	NETI (CST303)	23	11	12	54	19	8	4	4		5	7	3	
	INE 11 (CO1303)	23	11	12	34	19	0	4	4		3		3	
Principles of Environmental Compliance and Enforcement	CARB	23	11	12	170	111	3	6	4		6	4	2	1

Appendix B. Current Classroom Courses by Agency Type & Regional Consortia

		No. Se	lecting (Course	Pro	jected Atte	ndees			Regi	ional Consor	tia		
Course	Provider/ Course Number	Total	Local	State	In State	In Region	Out of Region	WESTAR	CenSARA	LADCO	MARAMA	METRO- 4	NESCAUM	None
Fundamentals of Enforcement	CARB (100)	23	13	10	106	18	8	7	3	2	3	5	3	
Overview of Clean Air Act Amendment 1990	RACC (Level 1)	22	8	14	151	30	2	4	4	1	6	4	3	
Optical Remote Sensing – UVDOAS	NETI (AIR201)	22	8	14	39	20	6	2	3	2	5	6	4	
Basic PROJECT Training (SEP Analysis)	NETI (CST116)	21	10	11	70	19	4	6	4	1	4	4	2	
Re-certification in VEE	CARB (100.1)	21	13	8	214	99	4	10	3		2	2	3	1
Aerospace Industry	CARB (230.1)	20	11	9	53	16	4	7	5		4	4		
Basic ABEL	NETI (CST101)	20	7	13	64	17	5	3	3	2	4	4	4	
Night Certification in VEE	CARB (100.2)	20	11	9	63	19	10	9	1	1	2	3	3	1
Advanced Administrative Practice Institute	NETI (CST302)	19	9	10	37	12	5	5	2		6	4	2	
Petroleum Refining	CARB (288)	18	4	14	70	22	9	3	5	2	3	1	3	1
Vehicle Emissions Technician's Course	OTAQ	18	5	13	55	24	14	4	2	2	5	3	2	
Criminal Environmental Enforcement for Regulators	NETI (CRM104)	17	7	10	105	30	7	3	2	1	5	5		1
Multi-Media Inspections	NETI (MLS102)	15	4	11	126	89	0	3		1	5	2	4	
Multi-Media Enforcement Symposium	CARB (300)	15	6	9	44	15	0	4			5	3	3	
Hazardous Waste Calculations Workshop	APTI (458)	14	6	8	23	13	8	2	2		5	1	3	1
Basic INDIPAY	NETI (CST114)	14	3	11	46	13	2	2	2		3	3	4	
Basic Multi-Media Inspector Academy	CARB (310)	13	4	9	98	18	0	3		1	5	1	3	
Basic MUNIPAY	NETI (CST115)	12	3	9	40	6	2	2	2		3	2	3	
Motor Vehicles Fuel Quality Inspection	OTAQ	12	3	9	44	17	4	4		1	2	2	3	
Intermediate Ability to Pay	NETI (CST 201)	11	4	7	35	10	2		1	2	3	2	3	
Multi-Media Training for Regulators	NET (MLS103)	11	3	8	48	14	2	2		1	3	1	4	
VEE Instructors Workshop	APTI/CARB	9	2	7	15	10	6	2	1		1	3	2	
Dry Cleaners/California Certification Only	CARB	8	4	4	10	4	1	2	2		2		2	
Oil Field Production	CARB (260)	7	2	5	29	8	1	2	1		1	2	1	

	Appendix B. Current Classroom Courses by Agency Type & Regional Consortia	
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Appendix C. Current Classroom Courses - by Agency Type & EPA Region

		No. Se	lecting C	Course						EPA Region											
Course	Provider/ Course Number	Total	Local	State	No. In State	No. In Region	No. Out of Region	1	2	3	4	5	6	7	8	9	10				
Control of Particulate Emissions	APTI (413)	60	27	33	382	146	54	5	3	8	13	7	3	6	3	8	4				
Hot Mix Asphalt Facilities	CARB (242)	60	28	32	305	93	42	5	3	8	13	6	3	6	2	10	4				
VOC Control Devices	CARB (284)	57	26	31	361	132	41	4	3	7	12	6	4	6	3	9	3				
Introduction to Hazardous Air Pollutants	APTI (400)	56	28	28	371	166	61	3	2	8	13	6	2	8	3	9	2				
Monitoring Compliance Test and Source Test Observation	APTI (468)	56	29	27	208	85	36	4	2	5	14	8	5	7	1	6	4				
Concrete Batch Plants	CARB (244)	55	26	29	255	86	35	5	3	8	10	5	4	6	2	9	3				
Aggregate Plants	CARB (243)	54	24	30	279	84	23	5	3	8	9	4	4	5	2	9	5				
AIRS Input and Reporting	NETI (AIR203)	54	27	27	157	66	33	3	3	7	12	7	4	4	1	9	4				
Control of Gaseous Emissions	APTI (415)	53	23	30	391	169	74	3	3	8	13	6	3	6	3	6	2				
Landfill Gas Control	CARB (285)	53	25	28	281	71	28	6	3	4	11	6	2	7	2	10	2				
Intermediate Permitting	APTI (461)	53	26	27	324	143	52	2	3	7	14	8	1	6	2	7	3				
Areas Source MACT Training	RACC (Level IV)	52	26	26	291	112	30	4	2	6	10	6	4	6	2	9	3				
Compliance Assurance (and Periodic) Monitoring	RACC (Level IV)	52	23	29	269	112	37	6	1	7	11	5	3	6	2	9	2				
Industrial Boilers	CARB (273)	52	24	28	316	127	55	3	3	7	13	5	3	5	2	9	2				
Nitrogen Oxides Emission Control Technology	RACC (Level IV)	52	21	31	279	104	29	5	3	8	11	6	4	5	2	5	3				
Preparation of Emission Inventories	APTI (419)	52	22	30	186	96	54	4	2	7	13	5	4	5	2	6	4				
Advanced Inspection Techniques	APTI (455)	51	25	26	403	141	34	3		8	13	7	3	4	3	6	4				
Combustion Evaluation	APTI (427)	51	18	33	332	115	49	3	3	8	12	7	2	5	2	5	4				
Stationary Reciprocating Engines	CARB (271)	51	20	31	266	104	44	5	2	6	11	4	3	5	1	11	3				
Control of Nitrogen Oxides Emissions	APTI (418)	51	21	30	328	146	69	4	3	8	13	6	3	5	1	5	3				
Principles and Practice of Air Pollution Control	APTI (452)	51	22	29	326	146	67	3	3	8	12	6	3	7	2	5	2				
Monitoring and Evaluation of Toxic Air Pollutants	APTI (401)	51	23	28	158	69	22	4	3	7	12	5	2	6	3	5	4				
Stationary Gas Turbines	CARB (272)	50	20	30	332	118	53	5	3	6	11	4	3	4	2	9	3				
Baghouses	CARB (282)	50	25	25	270	95	33	3	3	7	11	4	4	6	1	9	2				
Control Measures for CO, O3, and NOx	APTI (480)	50	22	28	316	118	42	6	3	8	11	7	2	4	1	6	2				
Continuous Emission Monitoring	APTI (474)	50	21	29	237	85	25	3	3	8	12	7	3	4	2	6	2				
Industrial Boilers	CARB (273)	49	22	27	275	108	51	4	3	8	10	4	2	5	2	9	2				
Sources and Control of Volatile Organics	APTI (482)	49	22	27	280	96	34	2	3	7	12	6	4	6	1	4	4				
Air Pollution Dispersion Models-Applications	APTI (423)	49	21	28	135	78	42	4	3	7	15	2	2	6	2	7	1				

Appendix C. Current Classroom Courses by Agency Type & EPA Region

		No. Se	electing (Course	Pro	jected Attende	es				E	PAI	Regi	ion			
Course	Provider/ Course Number	Total	Local	State	No. In State	No. In Region	No. Out of Region	1	2	3	4	5	6	7	8	9	10
Baseline Source Inspection	APTI (445)	48	23	25	207	67	28	1	2	7	13	5	4	5	3	5	3
Quality Assurance for Air Pollution Measurement Systems	APTI (470)	48	21	27	148	70	33	4	3	6	13	5	3	5	2	5	2
Observing Source Tests	CARB (224)	48	25	23	225	79	36	1	2	6	12	8	4	5		6	4
Effective Permit Writing	APTI (454)	48	23	25	304	122	40	2	3	7	11	8	1	6	1	8	1
Inspection Procedures and Safety	APTI (446)	47	22	25	434	156	34	2	2	7	11	8	4	5	2	5	1
NOX Emissions Control	RACC (Level IV)	46	20	26	220	94	32	6	3	8	8	4	3	5	1	6	2
100 Series	CARB (101-115)	46	21	25	182	68	18	2	3	6	11	3	3	5	2	8	3
Dry Cleaning	CARB (287)	45	23	22	201	77	31	3	2	6	11	5	2	3	3	8	2
General VOC Source Regulation and Inspection	RACC (Level III)	45	22	23	327	127	17	3	2	8	11	4	4	6	1	4	2
Basic Inspector Course	NETI (CST109)	44	22	22	182	69	22	2	1	9	8	6	4	4	3	6	1
Fundamentals of Enforcement	CARB (100)	44	23	21	208	56	19	2	1	8	8	4	3	4	2	9	3
Advanced Inspector Training	NETI (CST309)	44	21	23	353	159	41	2		9	7	6	5	3	3	6	3
Solvent Cleaning	CARB (233)	43	22	21	182	52	16	4	2	5	9	5	4	5	1	6	2
100 Series	CARB (101-115)	43	19	24	239	65	20	1	1	6	10	4	5	4	2	7	3
Chrome Plating ATCM	CARB (290.1)	42	20	22	170	59	12	3	2	5	12	5	3	3	2	6	1
Inspection of Particle Control Devices	RACC (Level 2)	42	21	21	178	51	13	3	1	7	9	4	3	4	3	6	2
Basic Air Pollution Control Equipment	CARB (107)	42	22	20	165	44	8	3	1	7	10	3	3	4	1	7	3
Gasoline Facilities Phase I and II	CARB (263)	42	25	17	197	49	10	5	2	5	7	2	4	3	1	10	3
Statistical Evaluation Methods for Air Pollution Data	APTI (426)	42	17	25	139	64	32	3	3	7	11	5	1	6	2	3	1
Fundamentals of Enforcement	CARB (100)	42	24	18	192	59	19	1	1	8	10	3	3	4	2	8	2
Inspector Safety	CARB (104)	41	21	20	263	122	9	2	1	6	10	4	3	4	2	7	2
Cement Plants	CARB (245)	41	16	25	206	57	14	3	2	7	9	3	2	5	2	7	1
ESPs	CARB (281)	41	17	24	231	82	25	2	2	7	10	6	2	4	1	5	2
Continuous Emissions Monitoring Systems	RACC (Level II)	41	17	24	168	63	25	1	3	6	8	6	3	5	2	4	3
Source Sampling for Pollutants (Lab)	APTI (450)	41	20	21	128	54	15	2	2	6	11	7	3	3	1	5	1
Emission Capture and Gas Handling System Inspection	APTI (345)	40	20	20	148	34	7	3	1	6	10	3	3	4	2	5	3
Combustion Source Inspection	RACC (Level III)	40	20	20	227	55	21	1	1	8	10	2	3	4	3	5	3
Fugitive Source Inspection	APTI (380)	40	20	20	170	45	20	3	1	7	10	4	3	3		6	3
VOC Inspections	CARB (262)	40	21	19	238	121	11	3	1	8	8	3	3	4		7	3
Incinerators	CARB (270)	40	17	23	232	90	40	2	3	5	9	4	1	4	1	7	4
Polyester Resin and Fiberglass	CARB (261)	40	21	19	189	60	21	3	2	5	9	5	3	3		6	4
AIRS Input and Reporting Refresher	NETI (303)	40	17	23	90	49	18	2	2	6	8	4	4	5	1	7	1

Appendix C. Current Classroom Courses by Agency Type & EPA Region

		No. Selecting Course Projected Attendees			es				E	PA	Reg	ion					
Course	Provider/ Course Number	Total	Local	State	No. In State	No. In Region	No. Out of Region	1	2	3	4	5	6	7	8	9	10
Asbestos NESHAP Inspection and Safety Procedures	APTI (350)	39	23	16	127	43	10	1	2	6	9	5	1	5	3	5	2
Fugitive VOC Leak Detection	APTI (456)	39	18	21	173	47	22	3	1	7	9	5	3	3	1	4	3
Gasoline Facilities (Vapor Recovery)	CARB	39	21	18	216	73	24	3	1	6	9	5	3	3		7	2
Statistical Analysis and Interpretation of Data for Hazardous Air Pollutants	APTI (403)	39	17	22	110	46	26	3	3	7	10	5	2	4	2	3	
Air Pollution Field Enforcement	APRI (444)	39	19	20	282	69	29	1	2	8	11	6	1	3	1	3	3
Advanced Continuous Emission Monitoring	CARB (222)	39	15	24	158	61	13	5	3	5	9	5	1	4	1	5	1
Basic Health and Safety for Field Activities	RACC (Level 1)	38	17	21	270	123	10	2	2	7	8	4	3	5	1	5	1
Fundamentals of Environmental Compliance Inspections	RACC (Level 1)	38	17	21	178	58	14	3	2	8	6	4	3	3	3	5	1
VOC Control Devices/Scrubbers	CARB (284)	38	16	22	215	86	27	2	3	7	7	3	2	6		6	2
Effective Permit Writing	CARB	38	19	19	203	87	24	3	3	7	8	4		4		6	3
Secondary Aluminum MACT	NETI (AIR 126)	36	13	23	184	66	28	2	1	5	10	6	3	5	1	2	1
Compliance Assurance Monitoring	RACC (Level IV)	36	15	21	128	63	19	4	2	6	9	3	1	4	1	5	1
Permitting Staff Development Workshop	CARB (330)	36	18	18	165	72	24	4	3	5	4	7		5		8	,
Baseline Source Inspection Techniques	RACC (Level II)	35	17	18	136	50	11	1	1	7	8	2	3	5	2	4	2
Metal Parts and Products	CARB (230)	35	16	19	203	112	12	2	2	7	8	4	2	3		6	1
Soil Decontamination	CARB (283)	35	16	19	168	35	10	2	2	5	7	4	2	1		10	2
Fugitive VOC Leak Detection	APTI (456)	35	17	18	140	44	10	3	2	6	7	4	3	1		5	4
Advanced Safety	CARB (202)	34	16	18	266	114	8	3	1	7	6	3	4	1	2	6	1
Asbestos D/R	CARB (251)	34	20	14	124	28	6		2	4	6	6	1	3	3	7	2
Inspection Techniques for Fugitive VOC Emission Sources	RACC (Level III)	34	15	19	151	45	8	3	1	7	8	3	3	4		3	2
Administrative Hearings and Trials	NETI (CST207)	34	14	20	158	38	12	2	2	7	9	1	3	2	1	6	1
Air Quality Monitoring Concepts	CARB (114)	34	16	18	130	40	10	4	3	4	7	4		4		7	1
Principles of Ambient Air Monitoring	CARB (222)	34	15	19	112	47	15	2	2	4	9	4	2	5		5	1
Inspection of Gas Control and Selected Industries	RACC (Level IV)	33	16	17	147	34	13	2		7	8	4	2	3	2	2	3
Graphic Arts	CARB (230.4)	33	16	17	124	32	3	2	2	7	9	3	2	2		4	2
Analytical Methods for Air Quality Standards	APTI (464)	33	14	19	108	47	25	2	3	6	9	4	1	3		3	2
Introduction to Receptor Modeling Workshop	APTI (424)	33	14	19	72	46	20	3	3	5	8	2	1	4	1	6	
Auto Refinishing	CARB (230.2)	32	19	13	108	25	2	2	1	8	3	3	2	2		7	4
Surface Coasting Sampling, Transport, and VOC Content Calculations	RACC (Level IV)	32	18	14	106	35	10		2	6	8	4	2	4	1	3	2
Symposium	CARB (300)	32	16	16	84	33	11	3	1	5	6	3	2	3	2	6	1
NSR/PSD Case Development	CARB (325)	32	18	14	123	32	5	1	1	5	9	3	1	5		6	1

Appendix C. Current Classroom Courses by Agency Type & EPA Region

		No. Se	lecting (Course	Pro	jected Attende	es				Е	PA F	Regi	on			
Course	Provider/ Course Number	Total	Local	State	No. In State	No. In Region	No. Out of Region	1	2	3	4	5	6	7	8	9	10
Principles and Practice of Air Pollution Control	RACC (Level 1)	32	10	22	141	56	20	2	3	7	6	3		4	1	4	2
Basic Environmental Enforcement Training	NETI/NEEP (CRM106)	31	17	14	131	37	8	2		6	7	5	3	2	2	2	2
VOC Sampling and Analysis	RACC (Level II)	29	15	14	92	32	16	1	2	5	8	4	2	3	1	3	
Air to Liquid Ratio Testing	CARB (264)	29	19	10	116	32	5	4	1	6	4	4	3	i		7	
Hazardous Waste Incineration	APTI (502)	29	7	22	191	48	16	2	3	6	7	4	1	2	1	3	
Accident and Emergency Management	APTI (503)	29	16	13	171	98	8	1	1	6	8	3	1	2	2	5	
Basic Environmental Investigations Training	NETI/WSP (CRM108)	28	13	15	130	35	8	2		6	8	4	1		2	4	1
Interviewing Techniques for Regulators	NETI/MEAA (CST111)	28	12	16	140	45	21	3	1	5	7	3	2	1	1	4	1
Pharmaceutical MACT	NETI (AIR125)	27	8	19	160	59	21	3	2	5	3	4	3	4	1	1	1
Gasoline Cargo Tanks	CARB (210)	27	13	14	72	33	4	6	1	5	6		1	2	1	4	1
Atmospheric Sampling (Lab)	APTI (435)	27	11	16	117	28	10	1	2	5	7	4		1	1	4	2
Evaluation of Stationary Source Emission Capture, Transport, and Testing Systems	RACC (Level 2)	27	14	13	87	28	11	1	2	4	8	4		3		3	2
Air Pollution Microscopy	APTI (420)	26	17	9	45	23	13	1	1	4	11	3		1		4	1
Basic Criminal Environmental Investigations	NETI/MEEA (CRM105)	26	13	13	218	92	4	2		6	9	2	1	1	1	2	2
Basic BEN	NETI (CST103)	26	10	16	71	20	6	3	1	4	5	3	2	1	2	2	3
Enforcement Teamwork: Regulations to Resolutions	NETI (CST208)	25	13	12	185	125	25	1	1	7	6	1	1	2	1	4	1
Advanced Negotiation Skills	NETI (CST204)	25	12	13	110	38	10	2	1	5	6	1	2		1	4	3
Metal Container, Closure and Coil Coating	CARB (230.3)	24	11	13	169	89	3	1	1	5	6	3	1	1	_	5	1
ACTS/NARS Training	NETI (AIR223)	24	13	11	71	28	14		1	4	5	4	2	3	1	4	
Basic Environmental Investigations Training	NETI/SEEN (CRM113)	24	11	13	112	32	8	1		6	8	3	1		2	2	1
Mutual Settlement Workshop	CARB (350)	23	13	10	51	28	5	2	1	4	4	1	2	2		6	1
Pleading and Litigating Civil Penalties	NETI (CST303)	23	11	12	54	19	8	2	1	5	7		2	2		3	1
Principles of Environmental Compliance and Enforcement	CARB	23	11	12	170	111	3	1	1	7	4		1	3		6	
Fundamentals of Enforcement	CARB (100)	23	13	10	106	18	8	1	2	2	6	2	1	2		6	1
Overview of Clean Air Act Amendment 1990	RACC (Level 1)	22	8	14	151	30	2	2	1	5	5	1	1	3	1	2	1
Optical Remote Sensing – UVDOAS	NETI (AIR201)	22	8	14	39	20	6	2	2	4	7	3	1	1	1	1	
Basic PROJECT Training (SEP Analysis)	NETI (CST116)	21	10	11	70	19	4	1	1	4	4	1	2	2	2	4	
Re-certification in VEE	CARB (100.1)	21	13	8	214	99	4	2	2	2	2		1	2		9	1
Aerospace Industry	CARB (230.1)	20	11	9	53	16	4			4	4		3	2		4	3
Basic ABEL	NETI (CST101)	20	7	13	64	17	5	3	1	4	4	2	2	1	1	2	
Night Certification in VEE	CARB (100.2)	20	11	9	63	19	10	2	2	1	4	1		1	2	7	
Advanced Administrative Practice Institute	NETI (CST302)	19	9	10	37	12	5	1	1	5	5		1	1		4	1

Appendix C. Current Classroom Courses by Agency Type & EPA Region

		No. Se	electing	Course	Pro	jected Attende	es				Е	PA F	Regio	on			_
Course	Provider/ Course Number	Total	Local	State	No. In State	No. In Region	No. Out of Region	1	2	3	4	5	6	7	8	9	10
Petroleum Refining	CARB (288)	18	4	14	70	22	9	2	2	2	2	3	4		2		1
Vehicle Emissions Technician's Course	OTAQ	18	5	13	55	24	14	1	1	4	4	3		1	1	3	
Criminal Environmental Enforcement for Regulators	NETI (CRM104)	17	7	10	105	30	7			5	6	1	1	1	1	1	1
Multi-Media Inspections	NETI (MLS102)	15	4	11	126	89	0	3	1	5	2	1				2	1
Multi-Media Enforcement Symposium	CARB (300)	15	6	9	44	15	0	2	1	5	3					4	
Hazardous Waste Calculations Workshop	APTI (458)	14	6	8	23	13	8	2	1	6	1			2		2	
Basic INDIPAY	NETI (CST114)	14	3	11	46	13	2	3	1	2	4		2		1	1	
Basic Multi-Media Inspector Academy	CARB (310)	13	4	9	98	18	0	2	1	5	1	1				3	
Basic MUNIPAY	NETI (CST115)	12	3	9	40	6	2	2	1	2	3		2		1	1	
Motor Vehicles Fuel Quality Inspection	OTAQ	12	3	9	44	17	4	2	1	2	2	1			1	3	
Intermediate Ability to Pay	NETI (CST 201)	11	4	7	35	10	2	2	1	3	2	2	1				
Multi-Media Training for Regulators	NET (MLS103)	11	3	8	48	14	2	3	1	3	1	1				1	1
VEE Instructors Workshop	APTI/CARB	9	2	7	15	10	6	1	1	1	3	1				1	1
Dry Cleaners/California Certification Only	CARB	8	4	4	10	4	1		2	1	1		1	1		2	
Oil Field Production	CARB (260)	7	2	5	29	8	1		1	1	2		1		2		

	Appendix C. Current Classroom Courses by Agency Type & EPA Region
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Appendix D. Current Classroom Courses – Tribal Responses

		No.	Proje	cted Atter	ndees
		Selecting		In	Out of
Course	Course Number	Course	In State	Region	Region
Introduction to Hazardous Air Pollutants	APTI (400)	3	2	4	2
Preparation of Emission Inventories	APTI (419)	3	5	5	3
Air Pollution Dispersion Models- Applications	APTI (423)	3	2	2	3
Introduction to Receptor Modeling Workshop	APTI (424)	3	2	1	2
Continuous Emission Monitoring	APTI (474)	3	2	2	3
Monitoring and Evaluation of Toxic Air Pollutants	APTI (401)	3	3	2	3
Areas Source MACT Training	RACC (Level IV)	2	1	2	1
Basic Inspector Course	NETI (CST109)	2	2	2	2
Fundamentals of Environmental Compliance Inspections	RACC (Level 1)	2	1	2	0
Overview of Clean Air Act Amendment 1990	RACC (Level 1)	2	3	3	3
Basic Air Pollution Control Equipment	CARB (107)	2	2	2	1
Fugitive Source Inspection	APTI (380)	2	1	2	1
ACTS/NARS Training	NETI (AIR223)	2	4	4	4
AIRS Input and Reporting	NETI (AIR203)	2	2	4	2
Quality Assurance for Air Pollution Measurement Systems	APTI (470)	2	2	4	2
Principles and Practice of Air Pollution Control	APTI (452)	2	1	3	1
Air Quality Monitoring Concepts	CARB (114)	2	2	2	1
Principles of Ambient Air Monitoring	CARB (222)	2	2	2	1
Effective Permit Writing	APTI (454)	2	1	1	2
Advanced Safety	CARB (202)	1	1	1	1
Basic Health and Safety for Field Activities	RACC (Level 1)	1	1	1	1
Inspection Procedures and Safety	APTI (446)	1	1	1	1
Inspector Safety	CARB (104)	1	1	1	1
100 Series	CARB (101-115)	1	0	1	0
Fundamentals of Enforcement	CARB (100)	1	0	1	0
Advanced Inspection Techniques	APTI (455)	1	1	1	1
Advanced Inspector Training	NETI (CST309)	1	1	1	1
Baseline Source Inspection	APTI (445)	1	1	1	1
Baseline Source Inspection Techniques	RACC (Level II)	1	1	1	1
Emission Capture and Gas Handling System Inspection	APTI (345)	1	1	1	1
Combustion Evaluation	APTI (427)	1	0	1	0
Industrial Boilers	CARB (273)	1	1	1	1
Compliance Assurance (and Periodic) Monitoring	RACC (Level IV)	1	0	1	0
Asbestos NESHAP Inspection and	APTI (350)	1	1	1	1

		No.	Proje	cted Atter	idees
Course	Course Number	Selecting		ln .	Out of
Safety Procedures	Course Number	Course	In State	Region	Region
Asbestos D/R	CARB (251)	1	1	1	1
VOC Inspections	CARB (262)	1	1	1	1
VOC Sampling and Analysis	RACC (Level II)	1	1	1	1
Gasoline Facilities Phase I and II	CARB (263)	1	1	1	1
Gasoline Facilities (Vapor Recovery)	CARB	1	1	1	1
Incinerators	CARB (270)	1	1	1	0
Industrial Boilers	CARB (273)	1	1	0	0
Cement Plants	CARB (245)	1	1	1	0
Control of Particulate Emissions	APTI (413)	1	1	1	1
Accident and Emergency Management	APTI (503)	1	1	1	1
Sources and Control of Volatile Organics	APTI (482)	1	1	1	1
Air Pollution Field Enforcement	APRI (444)	1	2	1	1
Fundamentals of Enforcement	CARB (100)	1	1	1	1
Basic Environmental Investigations	NETI/WSP	1	1	0	0
Training	(CRM108)				
Basic Environmental Investigations	NETI/SEEN	1	1	0	0
Training	(CRM113)	4	4	4	4
Basic Multi-Media Inspector Academy	CARB (310)	1	1	1	1
100 Series	CARB (101-115)				
Motor Vehicles Fuel Quality Inspection	OTAQ	1	1	1	1
Advanced Continuous Emission Monitoring	CARB (222)	1	1	1	1
Atmospheric Sampling (Lab)	APTI (435)	1	1	1	1
Continuous Emissions Monitoring Systems	RACC (Level II)	1	1	1	1
Evaluation of Stationary Source Emission Capture, Transport, and Testing Systems	RACC (Level 2)	1	1	0	0
Source Sampling for Pollutants (Lab)	APTI (450)	1	1	0	0
Permitting Staff Development Workshop	CARB (330)	1	1	1	1
Fundamentals of Enforcement	CARB (100)	1	1	1	0
VEE Instructors Workshop	APTI/CARB	1	0	0	1

Appendix E. Potential New Training Topics - by Agency Type & Regional Consortia

	No	. Selecti	na	Proje	ected Atter	ndina			Regi	ional Consor	tia		
Potential New Topic	Total	Local	State	In State	In Region	Out of Region	CenSARA	LADCO	MARAMA	METRO-4	NESCAUM	WESTAR	None
Permitting—NSR/PSD Principles for Permit Writers	56	24	32	324	143	57	8	5	8	13	8	13	1
Air Toxics—Emissions Inventory	55	25	30	207	80	28	7	4	8	12	6	16	2
MACT Standards— Industrial/Commercial/Institutional Boilers	54	20	34	385	141	65	8	6	9	10	7	12	2
Best Available Control Technology (BACT)	54	27	27	282	134	50	9	5	7	11	8	13	1
Air Toxics—Monitoring	51	24	27	173	83	28	10	4	5	12	7	12	1
Air Toxics—Data Analysis	49	23	26	110	70	34	8	5	6	12	5	11	2
MACT Standards—Municipal Solid Waste Landfills	48	20	28	167	66	16	8	5	6	11	7	11	
Emission Inventory Development for PM2.5 with Emphasis on Area Sources	48	23	25	120	72	33	9	4	5	11	6	11	2
Air Toxics—Modeling	47	20	27	137	69	25	7	4	7	11	5	11	2
Emissions Inventory General	47	23	24	126	62	26	6	4	6	12	4	14	1
New National Ambient Air Quality Standards (NAAQS) Including Ozone and PM2.5	46	22	24	136	76	29	8	5	7	10	5	9	2
New Source Review	44	22	22	185	94	25	5	5	6	12	7	9	
Air Toxics—Data Management	42	19	23	89	55	24	8	4	5	10	6	7	2
Risk Assessment Procedures	41	24	17	92	49	13	7	5	6	10	3	10	
MACT Standards—Miscellaneous Metal Parts	40	13	27	229	79	27	8	5	8	8	6	5	
PM2.5 Monitoring, QA/QC, and Laboratory Operations	39	21	18	110	60	23	7	4	5	9	6	8	
MACT Standards—Miscellaneous Organic NESHAP (MON)	37	14	23	233	80	26	7	5	7	8	5	4	1
PM2.5 SIP Development Requirements, Timelines, and Procedures	37	14	23	81	54	20	3	4	8	11	5	5	1
Regional Haze Emissions Inventory	35	10	25	79	49	27	6	2	6	7	4	9	1
Regional Haze – Data Analysis (Advanced)	33	10	23	72	44	23	6	1	5	6	5	9	1
Mobile Sources—Conformity	33	11	22	107	66	19	4	2	4	11	5	7	
Regional Haze – Modeling	33	10	23	56	40	21	5	1	4	6	5	12	
MACT Standards—Boat Manufacturing	32	8	24	129	54	13	6	3	5	8	4	6	
Mobile Sources—Transportation Control Strategies/TEA21 Act	32	11	21	80	43	14	3	4	3	11	5	6	

Appendix E. Potential New Training Topics – by Agency Types & Regional Consortia

									_				
	_ No	. Selecti	ng 📗	_ Proje	ected Atter				Regi	onal Consor	tia		
Potential New Topic	Total	Local	State	In State	In Region	Out of Region	CenSARA	LADCO	MARAMA	METRO-4	NESCAUM	WESTAR	None
Regional Haze – Speciation Monitoring	32	12	20	111	42	13	6	3	2	9	5	7	
Risk Communication Techniques	32	18	14	103	35	10	7	4	5	5	3	8	
Regional Transport Fundamentals and Emission Management Strategies	31	14	17	68	38	18	3	2	3	12	5	6	
Regional Haze – Data Analysis (Basic)	30	10	20	66	46	23	3	1	6	7	3	9	1
Mobile Sources Introduction and Overview of Motor Vehicle Air Pollution	30	9	21	109	59	18	3	2	4	10	6	5	
Risk Management Methodologies and Policies	30	14	16	72	35	10	5	4	6	7	4	4	
MACT Standards—Plywood and Particle Board Manufacturing	28	8	20	142	50	12	4	4	5	5	3	7	
Supplemental Environmental Projects	27	13	14	78	38	11	5	2	5	7	3	5	
Mobile Sources Automotive Technology/Formation and Abatement of Automotive Emissions	26	8	18	86	58	20	2		4	8	6	6	
New Source Performance Standards (NSPS) Development	26	13	13	67	31	6	2	2	5	6	4	7	
Market-Based Incentives and Emission Trading Program	24	6	18	51	29	12	4	2	5	4	4	5	
Permitting Harmonized Energy/Climate Change Strategies for Permit Writers	23	9	14	57	29	11	2	4	5	3	3	5	1
Greenhouse Gas Reduction Strategies	22	8	14	84	20	6	3	2	5	4	3	4	1
Mobile Sources—Inspection and Maintenance (I&M) Techniques	22	6	16	100	49	16	2	2	4	7	4	3	
Mobile Sources—Quality Assurance for I&M	21	4	17	85	46	29	2	1	3	6	5	4	
MACT Standards (Specify)	17	5	12	71	24	7	4	2	3	3	2	3	
Other (Specify)	11	4	7	27	20	9	4	1	2	1	1	2	
Air Toxics—Other (Specify)	8	5	3	45	10	5			2	2	1	3	
MACT Standards (Specify)	8	2	6	14	8	3		1	2	2	1	2	
Other (Specify)	5		5	28	12	3	2		1	1	1		
Other (Specify)	4		4	23	17	6	2		1		1		
MACT Standards (Specify)	2		2	5	2	2			1			1	
Air Toxics—Other (Specify)	1		1	10	0	0						1	

Appendix F. Potential New Training Topics - by Agency Type & EPA Region

	No. S	electing	Topic	Proi	ected Atte	endina					EPA Re	eaion				
Topic	Total	Local	State	In State	In Region	Out of Region	1	2	3	4	5	6	7	8	9	10
Permitting—NSR/PSD Principles for Permit Writers	56	24	32	324	143	57	6	3	7	14	6	2	5	2	7	4
Air Toxics—Emissions Inventory	55	25	30	207	80	28	4	3	8	13	5	1	5	2	10	4
MACT Standards—Industrial/Commercial/Institutional Boilers	54	20	34	385	141	65	5	3	9	11	7	2	5	3	7	2
Best Available Control Technology (BACT)	54	27	27	282	134	50	6	3	6	12	6	3	5	1	8	4
Air Toxics—Monitoring	51	24	27	173	83	28	5	2	6	12	5	3	6	1	6	5
Air Toxics—Data Analysis	49	23	26	110	70	34	3	3	6	13	6	2	5	1	6	4
MACT Standards—Municipal Solid Waste Landfills	48	20	28	167	66	16	4	3	5	12	5	3	5	1	7	3
Emission Inventory Development for PM2.5 with Emphasis on Area Sources	48	23	25	120	72	33	5	2	5	12	5	2	6	2	6	3
Air Toxics—Modeling	47	20	27	137	69	25	2	3	5	13	5	2	3	1	9	4
Emissions Inventory General	47	23	24	126	62	26	3	3	7	12	5	2	4	2	7	2
New National Ambient Air Quality Standards (NAAQS) Including Ozone and PM2.5	46	22	24	136	76	29	3	3	7	11	6	3	4		6	3
New Source Review	44	22	22	185	94	25	5	2	5	13	6	2	2		6	3
Air Toxics—Data Management	42	19	23	89	55	24	4	3	6	10	5	1	6	1	4	2
Risk Assessment Procedures	41	24	17	92	49	13	1	2	6	10	6	1	5	1	6	3
MACT Standards—Miscellaneous Metal Parts	40	13	27	229	79	27	4	2	7	9	5	2	6	1	3	1
PM2.5 Monitoring, QA/QC, and Laboratory Operations	39	21	18	110	60	23	4	2	5	9	5	2	4	1	5	2
MACT Standards—Miscellaneous Organic NESHAP (MON)	37	14	23	233	80	26	3	3	7	12	5	1	1		4	1
PM2.5 SIP Development Requirements, Timelines, and Procedures	37	14	23	81	54	20	3	3	6	9	5	3	4		3	1
Regional Haze Emissions Inventory	35	10	25	79	49	27	3	2	5	8	3	2	3	2	5	2
Regional Haze – Data Analysis (Advanced)	33	10	23	72	44	23	4	2	4	7	2	2	3	2	5	2
Mobile Sources—Conformity	33	11	22	107	66	19	4	1	3	12	3	2	1	1	4	2
Regional Haze – Modeling	33	10	23	56	40	21	3	2	3	7	2	2	2	3	7	2
MACT Standards—Boat Manufacturing	32	8	24	129	54	13	3	2	2	9	4	2	3		5	2
Mobile Sources—Transportation Control Strategies/TEA21 Act	32	11	21	80	43	14	4	1	3	11	4	2	1	1	4	1
Regional Haze – Speciation Monitoring	32	12	20	111	42	13	1	2	5	5	5	1	5	1	4	3
Risk Communication Techniques	32	18	14	103	35	10	2	2	4	9	4	2	3	1	1	4
Regional Transport Fundamentals and Emission Management Strategies	31	14	17	68	38	18	3	2	2	13	2		3		4	2
Regional Haze – Data Analysis (Basic)	30	10	20	66	46	23	2	2	6	7	4		5		3	1
Mobile Sources Introduction and Overview of Motor Vehicle Air Pollution	30	9	21	109	59	18	4	2	4	10	3		2	1	4	
Risk Management Methodologies and Policies	30	14	16	72	35	10	2	2	5	8	2	1	1	2	5	2

Appendix F. Potential New Training Topics – by Agency Types & EPA Region

	No. S	electing	Topic	Pro	ected Atte	ending				I	EPA R	egion				
Торіс	Total	Local	State	In State	In Region	Out of Region	1	2	3	4	5	6	7	8	9	10
MACT Standards—Plywood and Particle Board Manufacturing	28	8	20	142	50	12	1	2	4	6	5	1	2		3	4
Supplemental Environmental Projects	27	13	14	78	38	11	2	1	5	7	2	2	3	1	3	1
Mobile Sources Automotive Technology/Formation and Abatement of Automotive Emissions	26	8	18	86	58	20	4	2	3	9	1		1	2	4	
New Source Performance Standards (NSPS) Development	26	13	13	67	31	6	2	2	5	6	2	1	1	1	5	1
Market-Based Incentives and Emission Trading Program	24	6	18	51	29	12	3	1	4	5	3	1	2	1	3	1
Permitting Harmonized Energy/Climate Change Strategies for Permit Writers	23	9	14	57	29	11	1	3	4	4	5		1	1	1	3
Greenhouse Gas Reduction Strategies	22	8	14	84	20	6	2	1	5	5	3	1	1		2	2
Mobile Sources—Inspection and Maintenance (I&M) Techniques	22	6	16	100	49	16	2	2	3	8	2	1	1	1	1	1
Mobile Sources—Quality Assurance for I&M	21	4	17	85	46	29	3	2	3	6	1	1	1	1	2	1
MACT Standards (Specify)	17	5	12	71	24	7	2		3	3	2	2	2	1	1	1
Other (Specify)	11	4	7	27	20	9	1		2	1	2	1	2	1		1
Air Toxics—Other (Specify)	8	5	3	45	10	5	1		2	2				1	1	1
MACT Standards (Specify)	8	2	6	14	8	3	1		2	2	1			1		1
Other (Specify)	5		5	28	12	3	1		1	1		1	1			
Other (Specify)	4		4	23	17	6	1		1			1	1			
MACT Standards (Specify)	2		2	5	2	2			1					1		
Air Toxics—Other (Specify)	1		1	10	0	0										1

Appendix G. Potential New Training Topics – Tribal Responses

	No.	Proje	ected Atten	ding
	Selecting		ln	Out of
Topic	Topic	In State	Region	Region
Air Toxics—Emissions Inventory	3	3	4	3
Air Toxics—Modeling	3	2	1	2
Air Toxics—Data Analysis	3	2	3	2
Air Toxics—Data Management	3	3	3	2
Regional Haze – Data Analysis (Basic)	3	2	2	3
Emissions Inventory General	3	4	4	2
Emission Inventory Development for PM2.5 with Emphasis on Area Sources	3	3	3	2
Regional Haze Emissions Inventory	3	2	2	3
Regional Haze – Modeling	3	2	2	3
Regional Haze – Speciation Monitoring	3	2	2	3
Air Toxics—Monitoring	2	2	3	2
Best Available Control Technology (BACT)	2	1	0	1
Mobile Sources Introduction and Overview of Motor Vehicle Air Pollution	2	2	2	2
New National Ambient Air Quality Standards (NAAQS) Including Ozone and PM2.5	2	2	1	1
PM2.5 Monitoring, QA/QC, and Laboratory Operations	2	2	2	1
Regional Transport Fundamentals and Emission Management Strategies	2	2	2	2
MACT Standards—Municipal Solid Waste Landfills	1	1	1	1
Regional Haze – Data Analysis (Advanced)	1	0	0	1
Market-Based Incentives and Emission Trading Program	1	1	1	1
Mobile Sources Automotive Technology/Formation and Abatement of Automotive Emissions	1	1	1	0
Mobile Sources—Conformity	1	1	0	0
New Source Review	1	0	1	0
PM2.5 SIP Development Requirements, Timelines, and Procedures	1	1	1	1
Risk Assessment Procedures	1	1	1	1
Supplemental Environmental Projects	1	1	1	1

Appendix H. List of Respondents by State

State	Туре	Consortia	EPA Region	Agency Name	Agency City
AK	State	WESTAR	10	Alaska Department of Environmental Conservation, Air and Water Quality Division	Anchorage
AL	Local State	METRO-4 METRO-4	4 4	Jefferson County Department of Health Alabama Department of Environmental	Birmingham Montgomery
	Olato	WETKO 4	-	Management Management	Monigomory
AR	State	CenSARA	6	Arkansas Department of Environmental Quality	Little Rock
AZ	Local	WESTAR	9	Maricopa County Air Quality Division	Phoenix
		WESTAR	9	Pima County Department of Environmental Quality	Tucson
CA	Local	WESTAR	9	Amador County APCD	Jackson
		WESTAR	9	BAAQMD	San Francisco
		WESTAR	9	Lake County Air Quality Management District	Lakeport
		WESTAR	9	Mendocino County Air Quality Management Division	Ukiah
		WESTAR	9	Modoc County APCO	Alturas
		WESTAR	9	Sacramento Metropolitan AQMD	Sacramento
		WESTAR	9	San Diego County Air Pollution Control District	San Diego
СО	Local	WESTAR	8	Denver Department of Environmental Health	Denver
СТ	State	NESCAUM	1	Connecticut Department of Environmental Protection, Bureau of Air Management	Hartford
DC	State	MARAMA	3	District of Columbia	Washington
DE	State	MARAMA	3	Delaware Department of Natural Resources and Environmental Control	Dover
FL	Local	METRO-4	4	Environmental Protection Commission of Hillsborough County	Tampa
		METRO-4	4	Miami-Dade County DERM	Miami
		METRO-4	4	Palm Beach County Health Department	West Palm Beach
	State	METRO-4	4	Florida Department of Environmental Protection, Div. of Air Resources	Tallahassee
GA	State	METRO-4	4	Georgia Air Protection Branch	Atlanta
НІ	State	WESTAR	9	Clean Air Branch, Hawaii Department of Health	Honolulu
IA	Local	CenSARA	7	Linn County Air Quality Control	Cedar Rapids
	State	CenSARA	7	lowa Department of Natural Resources, Air Quality Bureau	Urbandale
IL	State	LADCO	5	Illinois Environmental Protection Agency	Springfield

State	Туре	Consortia	EPA Region	Agency Name	Agency City
IN	Local	LADCO	5	City of Indianapolis, Office of Environmental Studies	Indianapolis
KS	Local	CenSARA	7	Department of Air Quality, Wyandotle County Health Department	Kansas City
		CenSARA	7	Johnson County Environmental Department	Lenexa
KY	Local State	METRO-4 METRO-4	4 4	Louisville Metro Air Pollution Control District Kentucky Division for Air Quality	Louisville Frankfort
MA	Local State	None NESCAUM	1 1	Boston Air Pollution Control Commission Massachusetts DEP, Bureau of Waste Prevention	Boston Boston
MD	Local State	None MARAMA	3	Carroll County Health Department Maryland Department of the Environment, Air and Radiation Management Administration	Westminster Baltimore
ME	State	NESCAUM	1	Department of Environmental Protection Bureau of Air Quality	Augusta
	Tribal	NESCAUM	1	Penobscot Indian Nation	Indian Island
МІ	State	LADCO	5	Michigan Department of Environmental Quality, Air Quality Division	Lansing
MN	State	CenSARA	5	Minnesota Pollution Control Agency	Saint Paul
MO	Local State	CenSARA CenSARA	7 7	Saint Louis County Department of Health Missouri Department of Natural Resources, Air Pollution Control Program	Clayton Jefferson City
NC	Local	METRO-4 METRO-4 METRO-4	4 4 4	Forsyth County Environmental Affairs Mecklenburg County Air Quality Western North Carolina Regional Air Quality Agency	Winston-Salem Charlotte Asheville
	State	MARAMA	4	North Carolina Division of Air Quality	Raleigh
NE	Local	CenSARA CenSARA	7 7	Douglas County Health Department Lincoln-Lancaster County Health Department	Omaha Lincoln
	State	CenSARA	7	Nebraska Department of Environmental Quality	Lincoln
NH	State	NESCAUM	1	NH Department of Environmental Sciences, Air Resources Division	Concord
NJ	State	NESCAUM	2	NJ DEP	Trenton
NV	Local	WESTAR	9	Clark County Department of Air Quality Management	Las Vegas
		WESTAR	9	Washoe County District Health Department, Air Quality Management Division	Reno
	State	WESTAR	9	Nevada Division of Environmental Protection/Bureau of Air Quality	Carson City
	Tribal	WESTAR	9	Pyramid Lake Paiute Tribe	Nixon

State	Туре	Consortia	EPA Region	Agency Name	Agency City
NIV			_		
NY	Local State	None NESCAUM	2 2	Niagara County Department of Health NYS Department of Environmental Conservation	Lockport Albany
ОН	Local	LADCO LADCO	5 5	Cleveland Local Air Agency Hamilton County Department of Environmental Services	Cleveland Cincinnati
		LADCO	5	RAPCA	Dayton
	State	LADCO	5	Ohio Environmental Protection Agency	Columbus
OK	State	CenSARA	6	Oklahoma Department of Environmental Quality	Oklahoma City
OR	Local State	WESTAR WESTAR	10 10	Lane Regional Air Pollution Authority State of Oregon Department of Environmental Quality	Springfield Portland
PA	Local	MARAMA MARAMA	3 3	Allegheny County Health Department City of Philadelphia, Department of Public Health, Air Management Services	Pittsburgh Philadelphia
	State	MARAMA	3	Pennsylvania Department of Environmental Protection, Bureau of Air Quality	Harrisburg
PR	State	None	2	PR Environmental Quality Board	Santurce
RI	State	NESCAUM	1	Rhode Island DEM	Providence
SC	State	METRO-4	4	S.C. Department of Health and Environmental Control, Bureau of Air Quality	Columbia
TN	Local	METRO-4	4	Chattanooga-Hamilton County Air Pollution Control Bureau	Chattanooga
		METRO-4	4	Knox County Air Quality Management	Knoxville
		METRO-4	4	Metro Public Health Dept., Pollution Control Division	Nashville
	State	METRO-4	4	Tennessee Division of Air Pollution Control	Nashville
TX	Local	CenSARA	6	Bureau of Air Quality Control, Health Department, City of Houston	Houston
		CenSARA	6	City of Ft. Worth, Air Pollution Control Program	Fort Worth
		CenSARA	6	Galveston County Health District	La Marque
UT	State	WESTAR	8	Utah Division of Air Quality	Salt Lake City
VA	State	MARAMA	3	Virginia Department of Environmental Quality	Richmond
VT	State	NESCAUM	1	Vermont Air Pollution Control Division	Waterbury
WA	Local	WESTAR WESTAR	10 10	Northwest Air Pollution Authority	Mount Vernon
				Olympic Region Clean Air Agency	Olympia Spokane
		WESTAR WESTAR	10 10	Spokane County Air Pollution Control Authority	Spokane Yakima
	Tribal	WESTAR	10	Yakima Regional Clean Air Authority Makah Indian Tribe	Yakima Neah Bay
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Appendix H. List of Respondents by State

State	Туре	Consortia	EPA Region	Agency Name	Agency City
WI	State	LADCO	5	WI Department of Natural Resources, Air	Madison
	Tribal	LADCO	5	Management Menominee Indian Tribe	Keshena
WV	State	MARAMA	3	West Virginia Division of Air Quality	Charleston
WY	0	MESTAR		w · 5 · · · · · · · · ·	01
VV T	State	WESTAR	8	Wyoming Department of Environmental Quality, Air Quality Division	Cheyenne