



CiSCO CEMS Training Programs

# CISCO CEMS Training

Types of training available:

1. Analyzer Training
2. CEMS Hardware Training
3. CEMS Software Training
4. QA/QC Training
5. CISCO CEMS Online Training Center

# Analyzer Training

Teledyne and Thermo Scientific for NO<sub>x</sub>, O<sub>2</sub>, and CO

Topics covered:

- Theory of operation – how detection method works

- Familiarization with onscreen diagnostics

- Review of normal maintenance items

- Hands on troubleshooting

# Analyzer Training

Can be done at CiSCO or onsite

Site spare analyzer vs. CiSCO trainer

Advantage to onsite training: More people/less cost per person

Advantage to training at CiSCO: Less interruptions

# Analyzer Training

Price for onsite training: \$5000 for 2 day class,  
extra \$500 for shipping training analyzer

Price for training at CiSCO: \$2000 per person  
for 2 day training

# CEMS Hardware Training

Topics covered:

System prints with discussion

Common problems

Hands on troubleshooting

System Failures

# CEMS Hardware Training

Topics covered (continued):

Review and/or perform normal maintenance

Rebuilding pumps

Leak checks

Changing filters

# CEMS Hardware Training

Topics covered (continued):

Review and/or perform QA checks

Daily calibration checks

CGA/linearity checks



# CEMS Hardware Training

Can be done at CiSCO or onsite

CiSCO will soon have an onsite CEMS training shelter

Advantages to onsite training:

- More people/less cost per person

- Can immediately address onsite issues

Advantage to training at CiSCO: Less interruptions

# CEMS Hardware Training

Price for onsite training: \$4800 for 2 day training but can be customized

Price for training at CiSCO: \$1000 per person per day

# CEMS Software Training

Software covered:

CeDAR – Data collection, Editing, and Local Reporting

breez75X – 40CFR75 Data Editing and Reporting

ECMPS – EPA Software for 40CFR75 Reporting

# CEMS Software Training

Other Topics covered:

The PLC and how it interacts with CeDAR software

Regulatory Requirements as needed

How data is collected, checked, calculated, and stored

Troubleshooting and resolving data issues

# CEMS Software Training

Can be done at CiSCO or onsite

Advantages to onsite training:

- More people/less cost per person

- Focus on your facility

Advantages to CiSCO training:

- Less interruptions

- Opportunity to exchange information

# CEMS Software Training

Onsite training (CeDAR only): \$5000 for 2 day training

Training at CiSCO (CeDAR only): \$1000 - \$1500 per person

Onsite training (CeDAR/breez75X/ECMPS):  
\$7500 for 3 ½ days

Training at CiSCO (CeDAR/breez75X/ECMPS):  
\$2500 per person

# QA/QC Training

Topics covered:

Review of QA/QC Manual

Discuss QA Cert Events

40CFR Policy Manual Question 12.10

# QA/QC Training

Topics covered (continued):

Daily, Quarterly, Annual QA Tests:

Daily Calibration Checks

CGA/Linearity Checks

Relative Accuracy Test Audit (RATA)

Fuel Flowmeter Calibrations



# QA/QC Training

Can be done at CiSCO or onsite

With or without software components

Advantages to onsite training:

- More people/less cost per person

Advantages to CiSCO training: Less interruptions

# QA/QC Training

Price for onsite training: \$3500 for 1 day training or \$2500 per day for multiple days

Price for training at CiSCO: \$1000 per person per day

# CISCO CEMS Online Training Center

Web based – can access at anytime

Currently one hundred plus 3 to 5 minute videos for CeDAR 4 Software and regulatory

About thirty videos for CeDAR 6 Software

About ten videos for breez75X

Plans for 123 videos software and regulatory

# CISCO CEMS Online Training Center

CEMS Hardware

Should have 4 or 5 how to videos in few weeks

30-40 hours of video on CEMS hardware topics

# CISCO CEMS Online Training Center

Extremely customizable

Can create operator, technician, environmental groups, etc.

Can create specific courses

Searchable database

# CISCO CEMS Online Training Center

Other training materials:

Glossaries

Cheat sheets

Step-by-step “how to” guides

Check Lists

# CISCO CEMS Online Training Center

Over 150 quiz questions so far

Can require a quiz, have self test, or no quiz

Can generate certificate upon completion

# CISCO CEMS Online Training Center

Subscriptions can done per person, per site,  
per fleet

3 month, 6 month, annual, etc.

Contact Mike Dolan for pricing