

**DRAFT FRAMEWORK AND GUIDANCE FOR INTEGRATING
FEDERAL MAXIMUM ACHIEVABLE CONTROL TECHNOLOGY STANDARDS
INTO CALIFORNIA'S AIR POLLUTION CONTROL PROGRAM**

December 1998

I. AGREEMENT IN PRINCIPLE

This document sets forth a framework and guidance for the expeditious development and review of state/local requests to approve requirements that may differ from the federal maximum achievable control technology standards (MACT standards). The main purpose of the framework is to avoid duplicate requirements, make timely equivalency determinations, and use resources efficiently and effectively.

The framework has been developed through discussions with a small group of interested stakeholders.¹ The framework is considered draft and may be revised after the completion of several field tests. In addition, this draft document does not address the approval process, including public input; mechanism to address new sources; day-to-day management issues (which we are working to address under 40 CFR Part 63, Subpart A - General Provisions); or recommendations on appropriate amendments to Subpart E.

Nevertheless, the stakeholders participating in the development process agree in principle that adherence to the concepts embodied in this document should achieve the goal of efficiently and effectively making equivalency determinations.

The framework and guidance is intended to assist both the state/local agency staff responsible for developing equivalency requests and the U.S. EPA staff responsible for reviewing those requests. Adherence to the framework and guidance is expected to greatly simplify the required analysis and supporting justification, and substantially reduce the time required to prepare, review, and approve equivalency requests while maintaining the environmental benefits of both the federal and California programs.

The framework and guidance is intended to complement and facilitate compliance with section 112(l) of the federal Clean Air Act, 40 CFR Part 63, Subpart E, and any state/local agreements with U.S. EPA Region 9.

¹ The interested stakeholders include staff representatives of the United States Environmental Protection Agency, the Air Resources Board, the South Coast Air Quality Management District, the San Joaquin Valley Air Quality Management District, the San Diego County Air Quality Management District, the Northern Sonoma County Air Pollution Control District, the Coalition for Clean Air, the Environmental Health Coalition, the Western States Petroleum Association, and the Regulatory Flexibility Group.

II. GENERAL PRINCIPLES

The stakeholders participating in the process identified the following general principles to guide the effort. These principles are listed as relating to emissions equivalency, compliance assurance measures, and the approval process.

Emissions Equivalency

- ✓ Emission standards, including work practice standards, must be no less stringent than the federal requirements for the affected source,² where emission reductions can be reasonably quantified or where emission reductions are likely to result.
- ✓ State or local requirements must apply to, at least, the same universe of sources and cover the same pollutants.
- ✓ Compliance dates must be sufficiently expeditious, but not exactly the same if very minimal differences.

Compliance Assurance Measures Equivalency

- ✓ Alternative work practice requirements, monitoring, recordkeeping, and reporting requirements must satisfy agreed-upon criteria for acceptability that avoid the need for line-by-line equivalency and allow all resources to be used efficiently.
- ✓ Compliance assurance measures (including training, field inspections³, and rule-effectiveness studies) must be considered collectively when evaluating the overall equivalency of alternative state/local requirements.

The Approval Process

- ✓ Alternative requirements must be implemented by rule, permit, or other Federally enforceable mechanism that is directly enforceable by citizens in a court of law.
- ✓ Timeframes must be specified for U.S. EPA approval that are consistent with the needs of state/local agencies to manage the program in ways that avoid duplicate requirements.
- ✓ The public must have an opportunity to comment on proposed alternative requirements.
- ✓ State and local agencies must be delegated certain authorities consistent with the General Provisions to make implementation decisions based on a state/local-federal decision-making process that encourages state/local autonomy and accountability.

² An affected source is the collection of emission points, process units, equipment, products, or materials that are define in and regulated by the NESHAP promulgated for a particular source category.

³ In general, field inspections are to be conducted in accordance with existing state or local policies and procedures. Most field inspections are unannounced. In certain instances, field inspections are announced if there is no practical way to conduct an unannounced field inspection.

III. OVERALL FRAMEWORK

The overall framework is based on the need to ensure that, when all requirements are collectively considered, the state/local requirements for a particular source category are equivalent, or better, than those requirements in the corresponding MACT standard. Consistent with the General Principles stated in Section II, all emission reductions of the federal standard must be achieved.

The framework is based on the evaluation of two types of requirements: (1) critical requirements; and (2) important requirements. Critical requirements are those provisions of the federal MACT standard that are directly related to reducing emissions or ensuring that the emissions reductions are achieved on an ongoing basis. The critical requirements are associated with applicability, compliance dates, emission limitations, work practice standards, and certain compliance assurance measures. Table 1 lists the critical requirements developed by the stakeholders participating in the process.

Important requirements are necessary to ensure that there is sufficient information to collectively support the basis and intent of the requirements and do not need to be directly compared to the provisions in the corresponding MACT standard. The important requirements are associated with records, reporting, plans, and work practice requirements. Table 2 lists the criteria for evaluating important requirements that were developed by the stakeholders participating in the process.

The framework is intended to provide general guidance. It is expected that the developers and reviewers of the equivalency requests will work cooperatively together to identify and address any particular area of a MACT standard that will result in additional emission reductions but is not explicitly identified in this guidance as a critical or important requirement.

Table 1

Listing of Critical Requirements	
Critical Requirement	Description
Applicability	<ul style="list-style-type: none"> ▶ Category of sources ▶ Emission points ▶ Equipment ▶ Products and materials ▶ Pollutants (VOCs/HAPs)
Compliance Dates	<ul style="list-style-type: none"> ▶ Emission limitations ▶ Equipment installation or prohibition ▶ Material substitution ▶ Work practice standards
Emission Limitations	<ul style="list-style-type: none"> ▶ Mass/time emission rate ▶ Pollutant concentration (volume or mass basis) ▶ Control efficiency ▶ Work practice standards
Compliance Assurance Measures - Continuous Emission Monitoring	<ul style="list-style-type: none"> ▶ CEMS consistent with MACT standard ▶ Meet U.S. EPA provisions for performance specifications, installation, calibration, sampling, maintenance, operation, quality assurance procedures, measurement frequency, and recording
Compliance Assurance Measures - Parametric or Non-Continuous Emissions Monitoring	<ul style="list-style-type: none"> ▶ Equipment or approach ▶ Consider performance specifications, installation, calibration, sampling, maintenance, operation, quality assurance procedures, measurement frequency, and recording ▶ Frequency of measurement ▶ Frequency of recording
Compliance Assurance Measures - Records	<ul style="list-style-type: none"> ▶ Minimum 5 year retention ▶ Records of test results and material usage consistent with MACT standard or approved alternative parameters ▶ Records to support critical reporting requirements for Title V reports, excess emissions, exceedances, and violation reports, and breakdown and malfunction reports
Compliance Assurance Measures - Reporting	<ul style="list-style-type: none"> ▶ All Title V reports ▶ Reports that provided information consistent with MACT standard requirements for excess emissions, exceedances, and violation reports, and breakdown and malfunction reports
Compliance Assurance Measures - Plans	<ul style="list-style-type: none"> ▶ Performance test plan consistent with MACT standard ▶ Startup/shutdown plan only if sources not required to comply with emission limitations during periods of startup or shutdown ▶ Malfunction plan only if source not required to comply with district breakdown rule or if the requirements of district breakdown rule are not consistent with requirements in the MACT standard.

Table 2

Identification of Important Requirements	
Category	Description
Compliance Assurance Measures - Enforcement Authority	<ul style="list-style-type: none"> ▶ Is the state/local agency able to take enforcement action based on improper or inadequate operation or maintenance?
Compliance Assurance Measures - Records	<ul style="list-style-type: none"> ▶ Does the state/local agency collect, maintain, and make available information in the following areas: source test information, applicability information (initial notifications), preconstruction review information, and CEM information? ▶ Does the state/local agency have the authority to request additional records at any time?
Compliance Assurance Measures - Reports	<ul style="list-style-type: none"> ▶ Is the state/local agency committed to providing information regarding source test, applicability, preconstruction review, and CEMs to the public and U.S. EPA in a timely manner upon request?
Compliance Assurance Measures - Plans	<ul style="list-style-type: none"> ▶ Are the sources subject, via rule or permit, to specific operation, inspection, or maintenance requirements based on the type of source or the type of control equipment?
Compliance Assurance Measures - Work Practice Requirements	<ul style="list-style-type: none"> ▶ Are the state/local work practice requirements sufficient to ensure that the environmental benefits of the state or local regulation are achieved?

In general, the framework consists of four steps.⁴ Section III provides specific guidance for evaluating and reviewing the equivalency of critical requirements and important requirements.

1. State/local agency staff conduct an analysis of the critical requirements as follows. A template for evaluating critical requirements is presented in Table 3.
 - a. Review the MACT standard; identify and then list the citations and critical requirements in columns 1 and 2, respectively, of Table 3, using Table 1 as guidance.
 - b. Adjacent to each critical requirement, list the corresponding state/local requirements that are proposed to address that critical requirement.
 - c. In the fifth column of Table 3, provide a brief explanation of how the state/local requirements address the critical requirement. There are several options available for demonstrating the equivalency of critical requirements to the MACT standard and these are listed below (Additional details on how the demonstrations are made are presented in Section III.)
 - i. A state or local requirement that is exactly the same as an individual federal critical requirement.
 - ii. A combination of state or local requirements that achieve equivalent or better results than an individual federal requirement.
 - iii. A combination of state or local requirements (including those associated with emission limits, field inspections, compliance assurance training, or rule-effectiveness studies, and other groupings), when considered collectively, address less effective state or local requirements.

⁴ This framework is not intended to be a comprehensive step-by-step procedure on developing and reviewing equivalency packages. The reader should refer to 40 CFR Part 63, Subpart E, and other guidance material for additional information on completing equivalency packages.

Table 3
Template for Evaluating Critical Requirements

Critical Requirement in the MACT Standard		Proposed State/Local Requirements to Address Critical Requirement		Brief Description of How Requirements Address Critical Requirement
Citation	Provision	Citations	Provisions	
Example 1: §63.XX	Leak inspections by sight, smell, or touch.	Rule 1221: §C.5	Leak inspections using a hydrocarbon leak detector.	Detector is more reliable than perceptible leak inspections.
Example 2: §63.XX	Daily leak inspections.	Rule 1221: §C.6	Weekly leak inspections.	Weekly inspections with a hydrocarbon detector are at least as effective as daily perceptible lead inspections.
Example 3: §63.XX	Keep records of solvent usage.	Rule 1221: §D-2	Keep solvent purchase records.	Equivalent provision.

2. State/local agency staff conduct an analysis of the important requirements as follows, using the template provided in Table 4.
 - a. For each important requirement, list the corresponding state/local requirements that are proposed to address that important requirement.
 - b. In the fourth column of Table 4, provide a brief explanation of how the state/local requirements address the important requirements.

Table 4

Template for Evaluation of Important Requirements

Important Criteria	Proposed State/Local Requirements to Address Important Requirement		Brief Description of How Requirements Address Important Requirement
	Citations	Requirements	
Is the state/local agency able to take enforcement action based on improper or inadequate operation or maintenance?			
Does the state/local agency collect, maintain, and make available information in the following areas: source test information, applicability information (initial notifications), preconstruction review information, and CEM information?			
Does the state/local agency have the authority to request records at any time?			
Is the state/local agency committed to providing information regarding source test, applicability, preconstruction review, and CEMs to the public and U.S. EPA in a timely manner upon request?			
Are the sources subject, via rule or permit, to specific operation, inspection, or maintenance requirements based on the type of source or the type of control equipment?			
Are the state/local work practice requirements sufficient to ensure that the environmental benefits of the state or local regulation are achieved?			

3. State/local agency staff then develop and submit an equivalency package meeting the provisions of Title 40, Code of Federal Regulations, Subpart E, including a narrative description of the state/local requirements and the analyses provided in Step 1 and Step 2.⁵
4. U.S. EPA staff review the equivalency package to ensure that all provisions of 40 CFR Part 63, Subpart E, are met. As part of the review, the U.S. EPA staff conducts an analysis of the critical and important requirements as follows.
 - a. Make a general finding on the equivalency of each critical category (applicability, emissions limitations, work practice standard, compliance dates, selected compliance assurance measures). Record the finding and a brief description of the basis for the finding on the template provided in Table 5.
 - b. Make a general finding on the equivalency of the important criteria submittal. Record the finding and a brief description of the basis for the finding on the template provided in Table 5.
 - c. Most importantly, make an overall finding on the equivalency of the state/local agency requirements. Record the finding and a brief description of the basis for the finding on the template provided in Table 5.
 - d. If equivalent, proceed with the rest of the equivalency analysis, including management review and subsequent federal register listing.
 - e. If not equivalent, notify the state/local agency of the finding, provide reasons for finding, identify provisions that would likely make the equivalency package approvable, and subsequent federal register listing.

⁵ The ARB staff has developed and submitted equivalency packages for dry cleaning, chromium electroplating, and ethylene oxide sterilizers (draft available). These may be used as examples of the type of additional information required to satisfy 40 CFR Part 63, Subpart E.

Table 5

Template for U.S. EPA Staff Review of State/Local Equivalency Requests

Requirements	Equivalent		Brief Description of Equivalency Finding
	Yes	No	
<i>CRITICAL REQUIREMENTS</i>			
Applicability			
Compliance Dates			
Emission Limitations			
Compliance Assurance Measures - CEMs			
Compliance Assurance Measures - Parametric or Emissions Monitoring			
Compliance Assurance Measures - Records, Reporting, Plans			
<i>Are critical requirements for the compliance assurance measures equivalent overall?</i>			
<i>Are critical requirements equivalent overall?</i>			
<i>IMPORTANT REQUIREMENTS</i>			
<i>Are important requirements equivalent overall?</i>			
<i>ALL REQUIREMENTS</i>			
<i>Is the state/local equivalency request equivalent overall?</i>			

III. GUIDANCE FOR EVALUATING AND REVIEWING CRITICAL AND IMPORTANT REQUIREMENTS

The efficient and effective development and review of critical and important requirements is highly dependent upon the good analysis and judgement exercised by the developer and reviewer of the equivalency package. To assist these individuals, the following guidance is presented. The guidance is presented as General Guidance, Guidance to State/Local Agency Staff, and Guidance to U.S. EPA Staff.

General Guidance

The following general guidance is provided to assist the state/local agency and U.S. EPA representatives in developing and reviewing equivalency requests.

- ✓ Keep in mind at all times the following common interests:
 - ▶ avoid duplicate requirements;
 - ▶ use resources efficiently and effectively;
 - ▶ simplify rules;
 - ▶ achieve equivalent or better emission reductions; and
 - ▶ ensure ongoing compliance assurance.

- ✓ Use “best professional judgement” in developing analyses and making decisions. As part of this judgement, continuously ask if the amount of time being spent on the development or review of a particular analysis is justified relative to the benefits of the particular requirement. In addition, use common sense when developing or reviewing a particular analysis.

- ✓ Recognize that there are differences in “best professional judgement” and strive to resolve issues from the perspective of what is reasonable and necessary as opposed to what the specific requirements dictate.

- ✓ Be flexible and willing to accept different approaches to accomplish the objectives.

- ✓ Focus on results.

- ✓ Focus the analysis and review on those state/local requirements that are likely to have a significant impact on emission reductions and address those in a more thorough manner.

- ✓ Provide greater value to those measures that are most likely to affect emissions; in turn, provide lesser value to those measures that are not likely to have a measurable effect on emissions.

Guidance for State/Local Agency Staff

- ✓ Keep the analysis simple and understandable.
- ✓ Make it clear in the analysis that the proposed state/local requirements, in total, satisfy the critical and important requirements.
- ✓ Use the following guidance for developing the critical requirement analysis.

General Considerations

- ▶ List only the primary critical requirement. For example, the U.S. EPA requirement for a particular type of parametric monitoring equipment must be specifically listed, but not the associated requirements such as accuracy, precision, or calibration frequency.
- ▶ To assist in the review, quantify the emissions impact of the differences between the proposed state/local requirements and the federal requirement whenever the data are reasonably available.
- ▶ There are many situations where the benefits of either the federal requirement or the state/local requirements cannot be directly related to emissions or assurance of ongoing compliance without a separate long-term study, or the analysis is highly dependent upon the assumptions. In these situations, explain why a quantitative determination is not feasible and provide a plausible analysis for why there is a reasonable expectation that the state/local requirements are as effective as the federal requirements.
- ▶ Include in the analysis any and all directly comparable state/local requirements and collective state/local requirements that, in total, will satisfy the critical requirement. This is referred to as a line-by-line analysis of the critical requirements, but should not be confused with a line-by-line equivalency determination. Collective requirements may include the following:
 - state/local experience with the particular source category (e.g. number of years rules in effect for sources or number of years permitting sources);
 - consideration of whether the source's operation is variable or steady state, and the resultant impact on emissions;
 - interlock systems and alarm systems that trigger when parameters are out of range;
 - more effective state/local compliance assurance measures overall, which may lessen the need for certain federal compliance assurance measures;
 - commitment to annual or more frequent field inspections, where the results can reasonably be expected to improve the actual in-use compliance rate for achieving the reductions on an ongoing basis;
 - availability of existing compliance assurance training, or commitment to develop such training, where the results can reasonably be expected to improve the overall compliance rate for achieving the emission reductions on an ongoing basis;

- commitment to rule effectiveness studies, where the results may be important to quantify or support a determination of high compliance rates for achieving emission reductions on an ongoing basis; and
- more effective state/local emission limitations or work practice standards, which may lessen the need for certain federal compliance assurance measures.

Applicability

- ▶ For applicability equivalency determinations, the goal of the equivalency review is to ensure that the state/local rule requires emissions reductions from the same affected sources that are subject to emissions reductions requirements in the federal rule.

Compliance Dates

- ▶ For the compliance schedule applicability determinations, the goal of the equivalency review is to ensure that the state/local rule achieves equivalent emission reductions on the same schedule required by the federal rule, and to allow minor deviations in the schedule if necessary for efficient and effective program implementation, provided that: 1) the emissions impact of the alternative schedule is insignificant, and 2) the alternative schedule requires compliance that is sufficiently expeditious. The state/local rule must require compliance with emission limitations, equipment installation or prohibition, material substitution, and work practice standards which clearly impact emissions, no later than the date required for the corresponding reductions in the federal rule, except for:
 - differences in compliance schedule where the state/local compliance date and associated compliance demonstration is within the time period allowed for compliance testing (typically 180 days after effective date of the requirement);
 - differences in compliance schedule where the control equipment is already in place and in compliance with the federal emission limitations.
 - differences in compliance schedule for existing sources, equipment (etc.), where such sources, equipment, etc., do not currently exist in the state/local jurisdiction;
 - differences in compliance schedule where the actual impact on emissions reductions is insignificant;
 - extensions of up to one year which are necessary for the installation of equipment [ref: section 112(i)(3)(b)];
 - extensions granted pursuant to section 112(i) to sources which have installed BACT or LAER on emission points or streams regulated by the federal rule, prior to the promulgation of the federal rule [ref: section 112(i)(6)]; and
 - extensions for compliance with residual risk standards granted pursuant to section 112(i) for new or reconstructed sources [ref: section 112(i)(7)].

Emission Limitations

- ▶ For emission limitation equivalency determinations, consider the following factors.
 - *Emissions limitation format:* Emissions limits in different forms must be converted to a common format and/or units of measure or a correlation established among different formats prior to comparisons. For most standards, units can be converted or a correlation can be developed. For some standards, this may be more difficult. However, in almost all cases, conversion or correlation can be achieved if good science and, when needed, empirical data from representative or “model” facilities are utilized. If the limits cannot be converted to the same form or a reasonable correlation cannot be developed, then an equivalency determination cannot be made.

Limitations for specific pollutants can be deemed equivalent to limitations on classes of pollutants provided that it can show that the general limit will regulate the same set of pollutants to the same extent as the underlying applicable requirements. Where a single VOC limit subsumes one or more HAP limits, the standard must be written to assure that each of the subsumed limits will not be exceeded. Pollutant speciation data from representative sources (including EPA/CARB speciation manuals) can be used in making such demonstrations. However, a limit for a single or limited number of compounds cannot be used to subsume a limit for a broader class (e.g., a hexane limit for a VOC limit) because this would effectively deregulate any of the class that are not covered by the more limited group.

- *Transfer or collection efficiencies:* Various emission limits must be corrected for any applicable transfer or capture efficiency before comparison. For instance, two rules that specify identical final emission rate from control device may not be equivalent if one requires 90% capture and the other 95%.
- *Averaging time:* Emissions limits with varying averaging times can be deemed equivalent if the state or local agency can demonstrate that the averaging time does not affect the stringency of the emission limitations.
- *Test methods prescribed in the applicable requirements:* In some cases varying test methods affect the stringency of emissions limits. For instance, for particulate matter, the use of a test method that excludes the condensables (i.e., back half catch) is less stringent than demonstrating compliance with the same emission limit using a method that includes both the front and back half particulates. A similar situation may occur with other test methods measuring VOCs or hazardous air pollutants.

Under these circumstances, the effect of varying test methods on the stringency of emission limits must be quantified and the limits must be adjusted accordingly prior to comparison.

- ▶ Empirical and other reliable data from representative or model facilities can be used in evaluating varying emission limits. Representative or model facilities must address all plausible worst case design and operating scenarios that affect emissions and units covered by the MACT standard.

Compliance Assurance Measures

- ▶ When evaluating the frequency of measurement and recording for parametric or emissions monitoring, consider the following guidance and Table 6 in preparing the analysis.
- ▶ The effective date of compliance may affect the overall equivalency, particularly if the date is earlier than the corresponding MACT standard compliance date.
- ▶ Collectively, the state or local frequency of measurement or recording requirements listed in Table 3 must satisfy all of the factors below.
 - Frequency of monitoring measurement and recording must be appropriate for the averaging time of the applicable standard.
 - Monitoring must be frequent enough to detect non-compliance with reliability.
 - Amount of monitoring varies based on how unit is operating with respect to emission limits (x% of emission limit); less monitoring if there is a comfortable margin of compliance.
 - In determining margin of compliance, consider the accuracy of the emission estimation method -- less monitoring if reliable emission factors exist.
 - Monitoring must be frequent enough to identify an exceedance that could result in significant public health/environmental impacts.
 - Monitoring frequency must take into account the potential for sources in the source category to change compliance status in a given time frame (need not account for fluctuations within margin of compliance, but must address potential significant emissions). Consider potential variability of emissions and likelihood of an exceedance.
 - Look at emissions over time under normal/upset conditions. More variability likely dictates more monitoring; less variability means less monitoring. Variability within the margin of compliance is okay.
 - Consider variability within a source category or caused by equipment failure or degradation (e.g. less ongoing MRR for units with integrated control systems).

Table 6

Guidance for Evaluating Potential Variability of Emissions, Likelihood of an Exceedance, and Significant Public Health or Environmental Impacts				
Ranking	Potential Variability	Likelihood of Exceedance	Public Health/ Environmental Impacts	Suggested Monitoring/ Recording Frequency
high	normal variability $\geq 40\%$	more than one upset per week	immediate, acute, or significant off-site effects	hourly or daily
medium	normal variability 15-40%	one per month	short term excursions pose insignificant risk/impact	daily or weekly
low	normal variability $\leq 15\%$	less than 2/year	long term, chronic effects	weekly or monthly

- ▶ Where the frequency of monitoring or associated recordkeeping is less frequent than the federal MACT standard, evaluate the impact of enforcement. For example, once a source is found to be out-of-compliance, what is the ability of the agency to prove that the source was likely to be exceeding the standard and for how long.
- ▶ If the state or local requirements have been implemented prior to the promulgation of the MACT standard, there are situations that can occur where the performance tests have already been conducted under state or local requirements. To prevent the unnecessary duplication of testing, the state or local agency representatives should work closely with appropriate U.S. EPA staff to determine if the existing source tests can be used to meet the federal requirements. (For example, see the Chrome Plating Source Test Evaluation Protocol used to compare state and local chrome plating source tests to the federal source test requirements.)
- ▶ If field inspections, compliance assurance training, or rule-effectiveness studies are used as part of the collective compliance assurance equivalency demonstration, provide a plausible analysis as to why these provisions should be considered as part of the equivalency demonstration. As part of the analysis, consider the following:
 - General Considerations:
 - the information available on the reliability and effectiveness of the control technology or pollution prevention measures;

- the likely occurrence and frequency of in-use failures of the equipment that would result in a violation of an emissions-related requirement (versus low in-use compliance rates that are administrative in nature);
- the emissions consequences of a failure;
- the likelihood that a failure will be noticed expeditiously;
- the reliability of the monitoring equipment;
- the effectiveness of the state/local compliance assurance requirements in assuring ongoing compliance;
- the compliance history associated with the source category;
- the knowledge and expertise of the affected owners and operators;
- the complexity of the requirements; and
- the likelihood of the requirements being implemented properly.

Considerations Specific to Field Inspections:

- the benefits of a field presence at the proposed frequency of inspections;
- the knowledge and expertise of the field inspectors;
- the deterrence factor associated with a field presence;
- the specific inspection frequency; and
- the consequences if the identified field inspections requirements are not met.

Considerations Specific to Compliance Assurance Training:

- the likelihood that training would improve the facility owner and operators understanding of the requirements;
- any historical information that indicates that there is a correlation between training and improved performance;
- the specific type, content, and frequency of training; and
- the consequences if the identified compliance assurance training requirements are not met.

Considerations Specific to Rule-Effectiveness Studies:

- the likelihood that in-use compliance rates for control equipment or compliance assurance measures will be low; and
- the compliance history information available to demonstrate high in-use compliance rates.

- ▶ Where more effective emission limitations are used as part of the collective compliance assurance equivalency demonstration, provide a plausible analysis as to why these provisions should be considered as part of the equivalency demonstration. Determine the relationship of the compliance assurance measures to the emission limitations and determine if the proposed state/local requirements are adequate to ensure ongoing compliance with the more effective emissions limitations, even if those measures are significantly different than the federal measures.

- ▶ If an alternative monitoring approach or equipment is used, appropriately consider the provisions for performance specifications, installation, calibration, sampling, maintenance, operation, quality assurance procedures, measurement frequency, and recording when evaluating equivalency.
- ✓ For the important requirements, provide a plausible analysis of how the proposed state/local requirements will satisfy each important requirement listed. Again, use collective measure, if appropriate, and provide quantitative assessments where reasonably feasible.

Guidance for U.S. EPA Staff

- ✓ Review the analysis provided for each critical and important requirement.
- ✓ Focus on those state/local requirements that are likely to have a significant impact on emission reductions and address those in a more thorough manner.
- ✓ A different type of monitoring equipment or approach in the S/L rule could be considered equivalent if:
 - ▶ the S/L form of the emission standard is different from the MACT standard and requires a different monitoring approach; AND
 - ▶ the S/L monitoring meets the following criteria: (1) Considered accurate, reliable, timely, replicable, and precise for the purpose of determining continuous compliance; (2) clear and practical to perform; and (3) assures federal enforceability, including citizens ability to bring enforcement action.
- ✓ Recommend approval of the state/local compliance assurance requirements provided that the state/local explanation reasonably demonstrates that the requirements result in equivalent or better emission reductions.
- ✓ When there is no clear determination as to the effectiveness of the state/local compliance assurance requirements versus the federal requirement, use “best professional judgement” to determine if the difference will have a measurable effect on emissions. Recommend approval of the state/local compliance assurance requirements if the difference will not materially affect the emission reductions.
- ✓ Provide greater value to those measures that are most likely to affect emissions; in turn, provide lesser value to those measures that are not likely to have a measurable effect on emissions. For example, field inspections and rule-effectiveness studies will provide a direct and independent evaluation of the effectiveness of the measure at an individual facility and for the measure overall, and are related to emissions.
- ✓ In determining the equivalency of the state/local compliance assurance measure package, first decide if the state/local requirements proposed to address the federal requirements

are collectively equivalent to the federal critical requirements. Conduct a similar analysis for the important requirements. Finally, and most importantly, make the equivalency finding as to whether the proposed state/local requirements, as a collective package, are equivalent to the federal compliance assurance measures.

- ✓ Be empowered to make decisions relative to the acceptability of requirements, recognizing that there will be management review. Avoid delegating decision-making to higher management. Highlight those issues where there may be controversy.
- ✓ If the analysis supporting the state/local requirements is not acceptable, identify the reasons why the analysis is not acceptable and, if possible, the changes that would make the analysis acceptable.