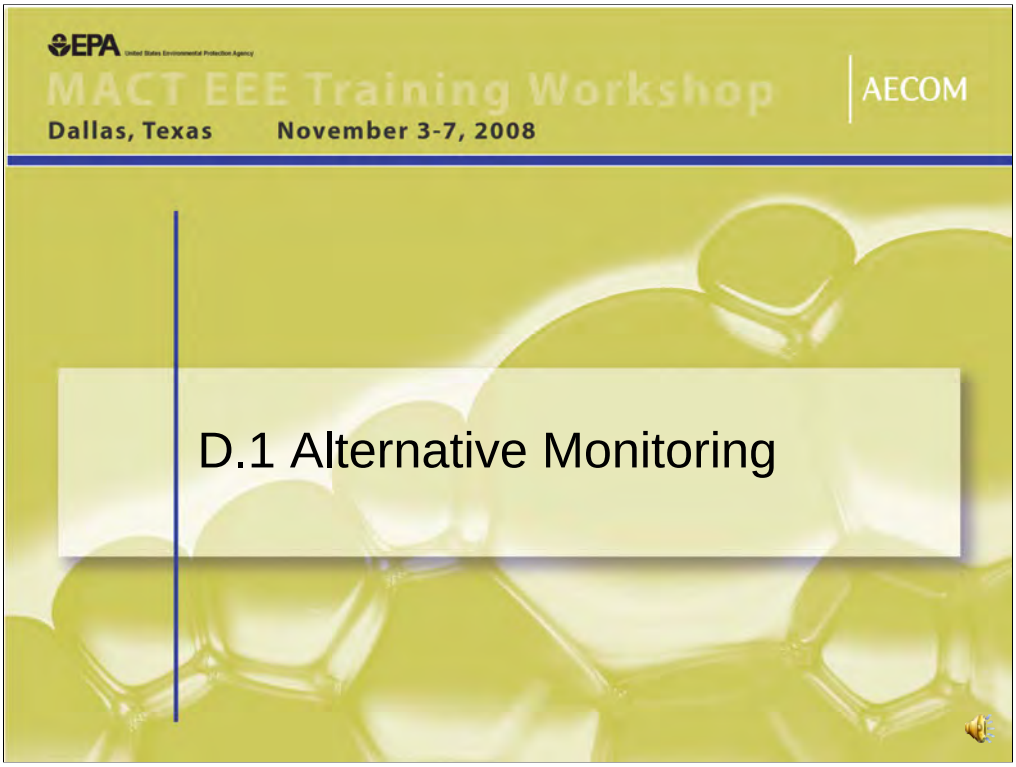
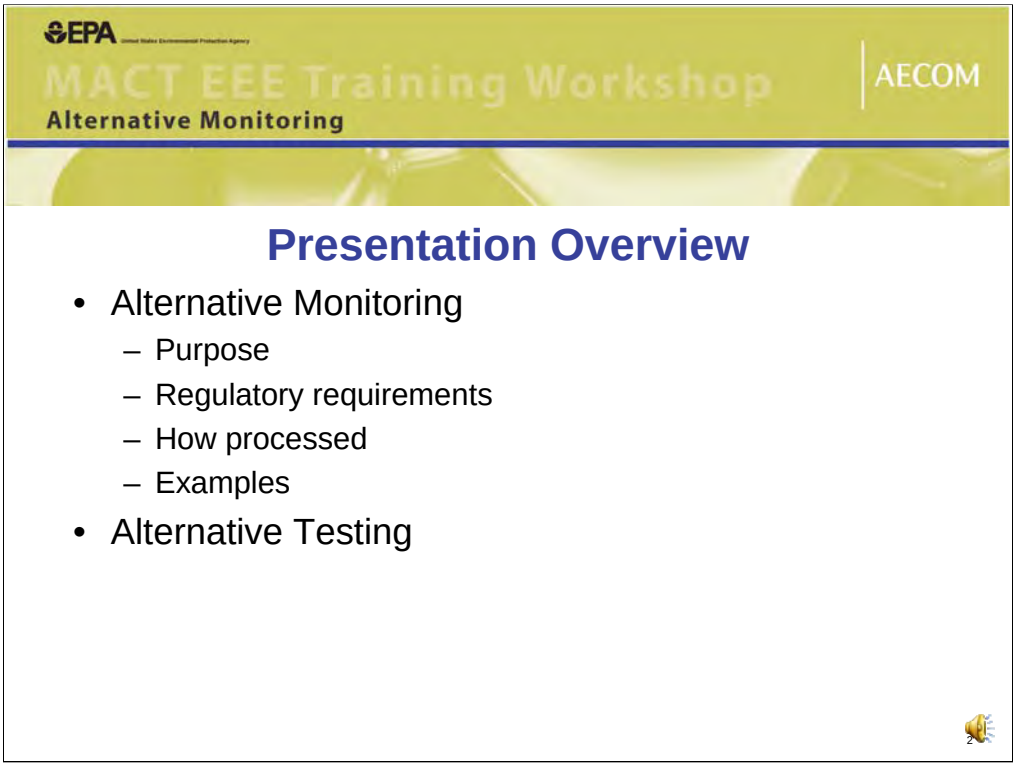
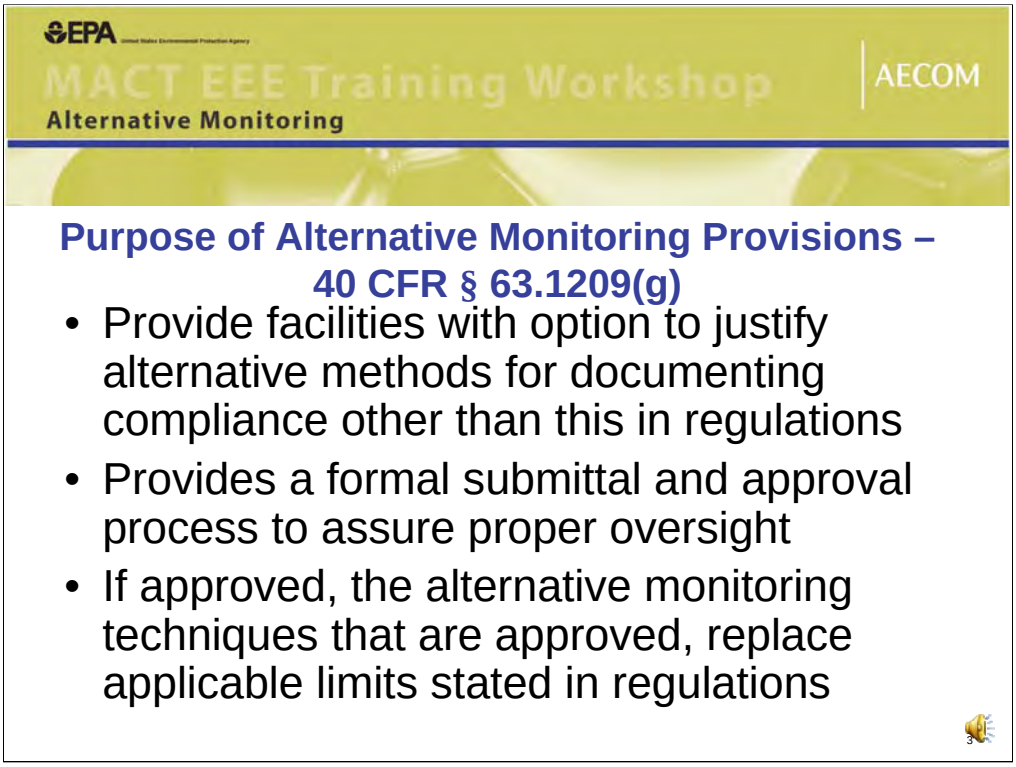


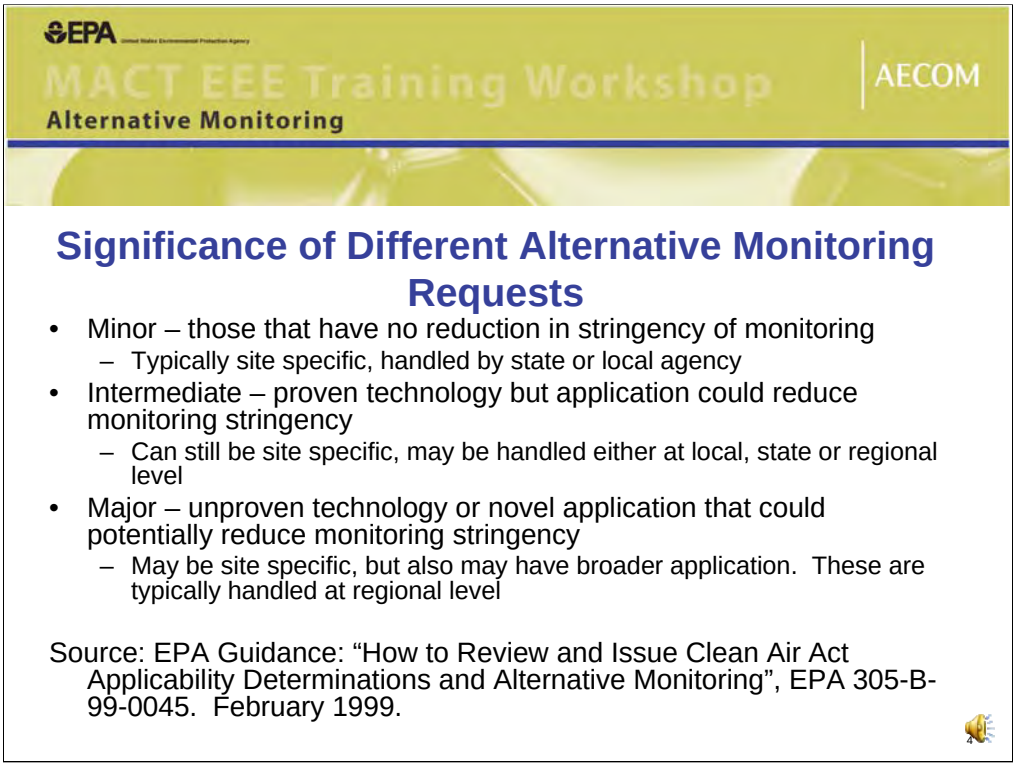
This module will discuss alternative monitoring approaches under Subpart EEE.



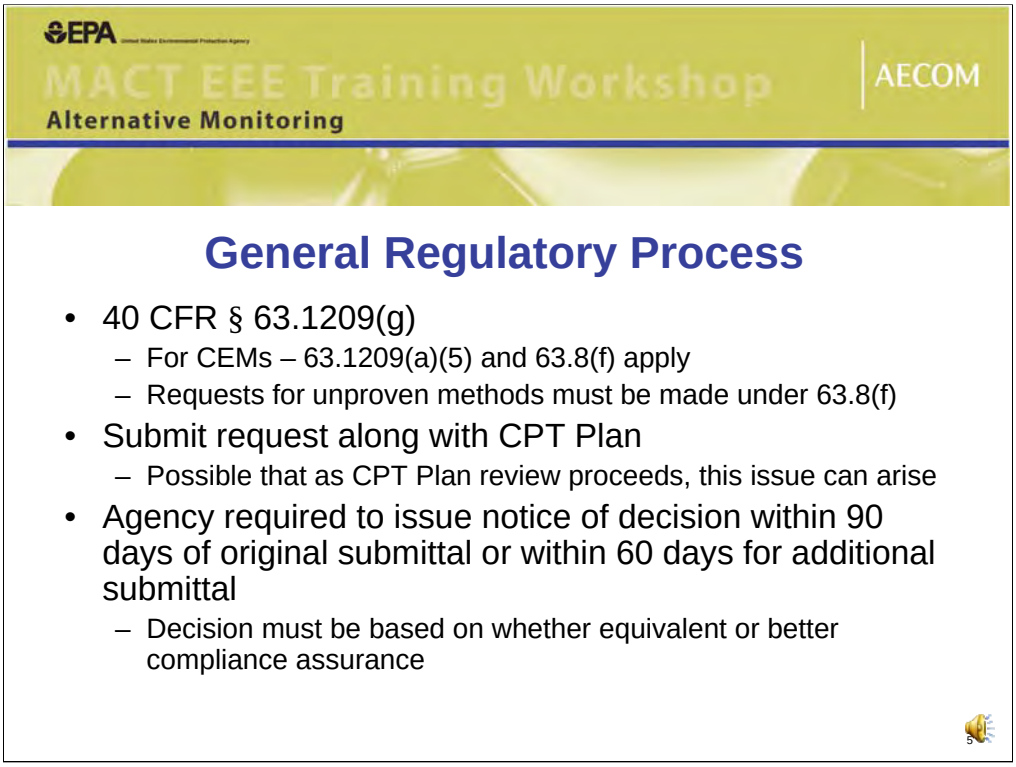
The topic will include a discussion of both alternative monitoring and alternative testing.



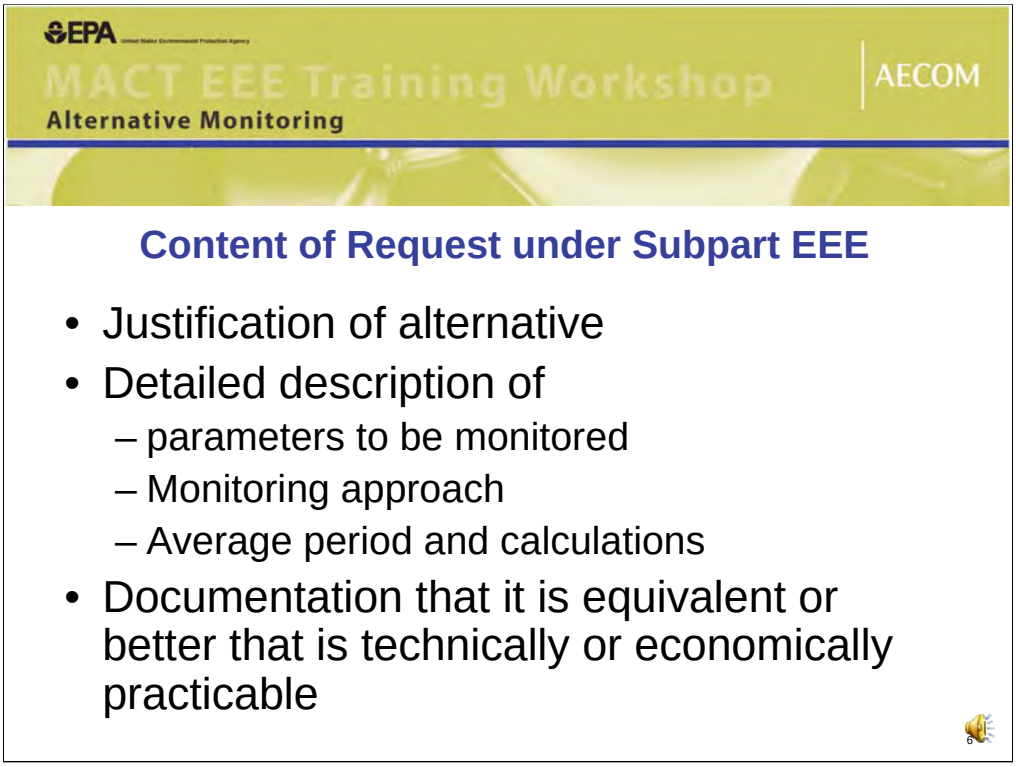
The purpose of these provisions is to provide facilities with options to justify alternative compliance approaches that are not directly incorporated into the regulations. These approaches need to be formally submitted by the facility and approved by the agency.



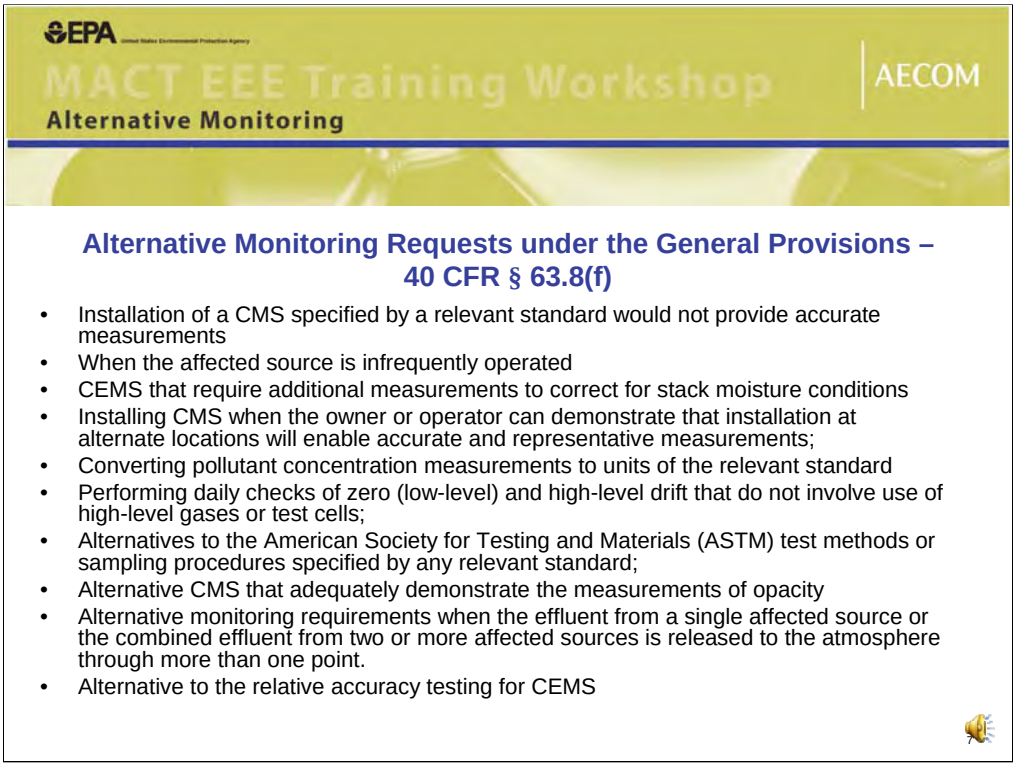
EPA has issued guidance that categorizes alternative monitoring requests into three different levels as summarized on this slide. The level of the request dictates whether the state or EPA region can approve such requests. Examples of the levels can be found in the EPA guidance.



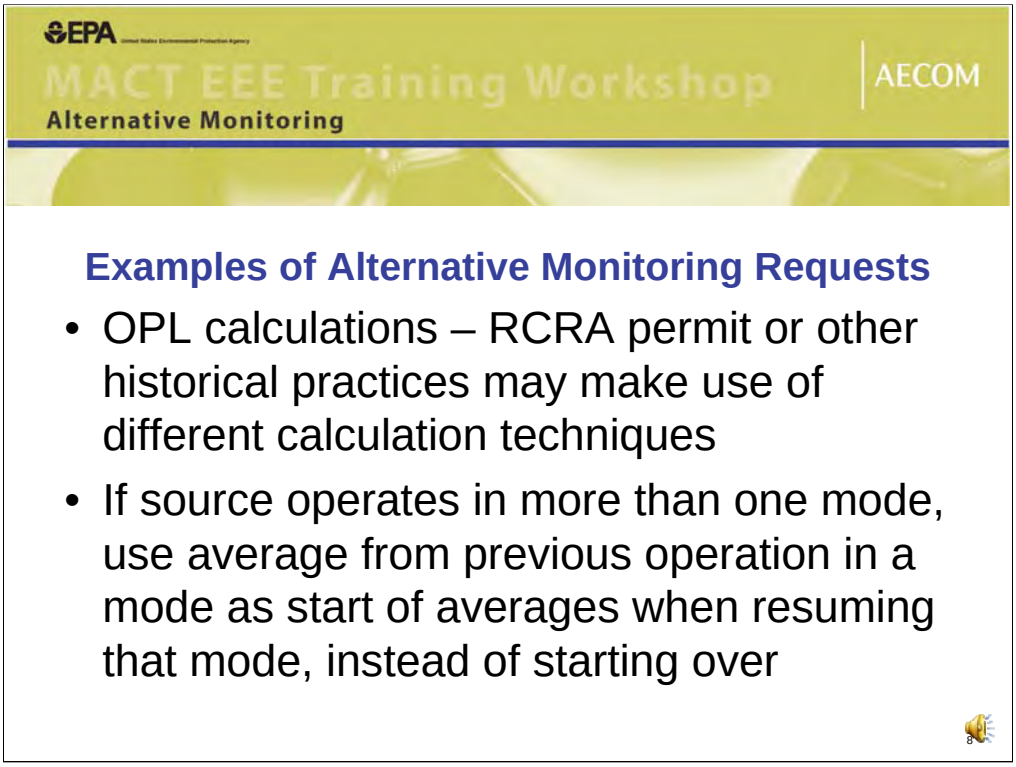
In general AMA requests should be submitted along with the CPT Plan, however, it may not be apparent that a monitoring approach is actually an AMA at the time of CPT Plan submittal. The agency must then issue a notice of decision within certain time frames discussed on this slide.



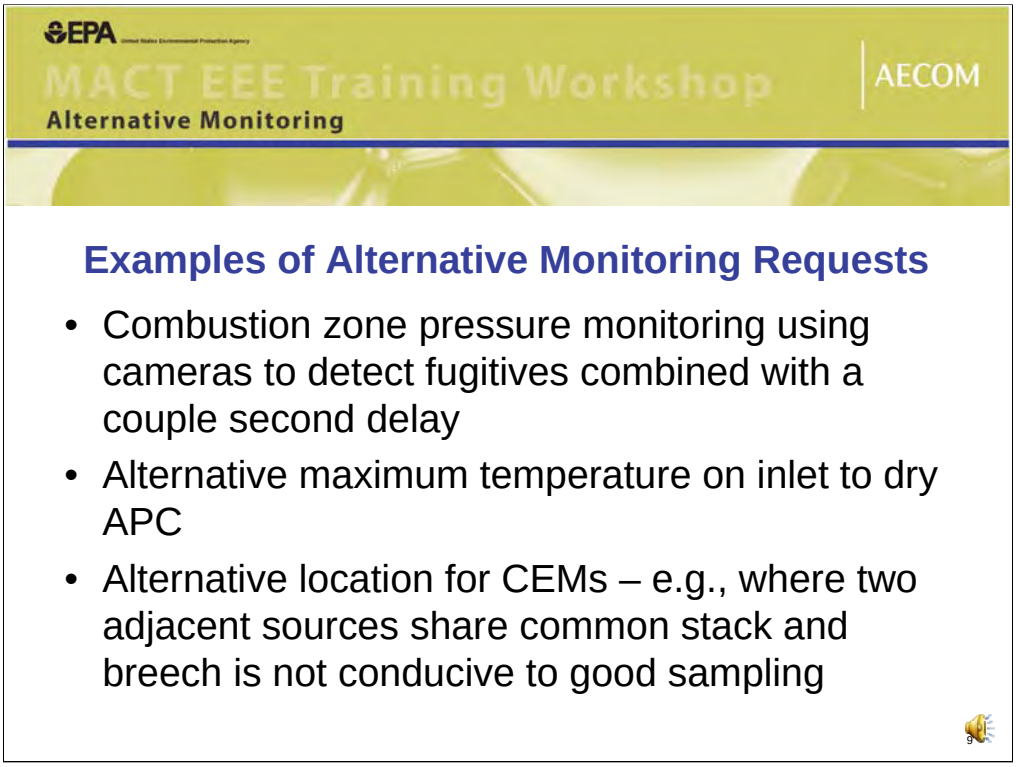
AMA requests under Subpart EEE must contain the information summarized on this slide and show how it is equivalent or better than what is provided in the regulations.



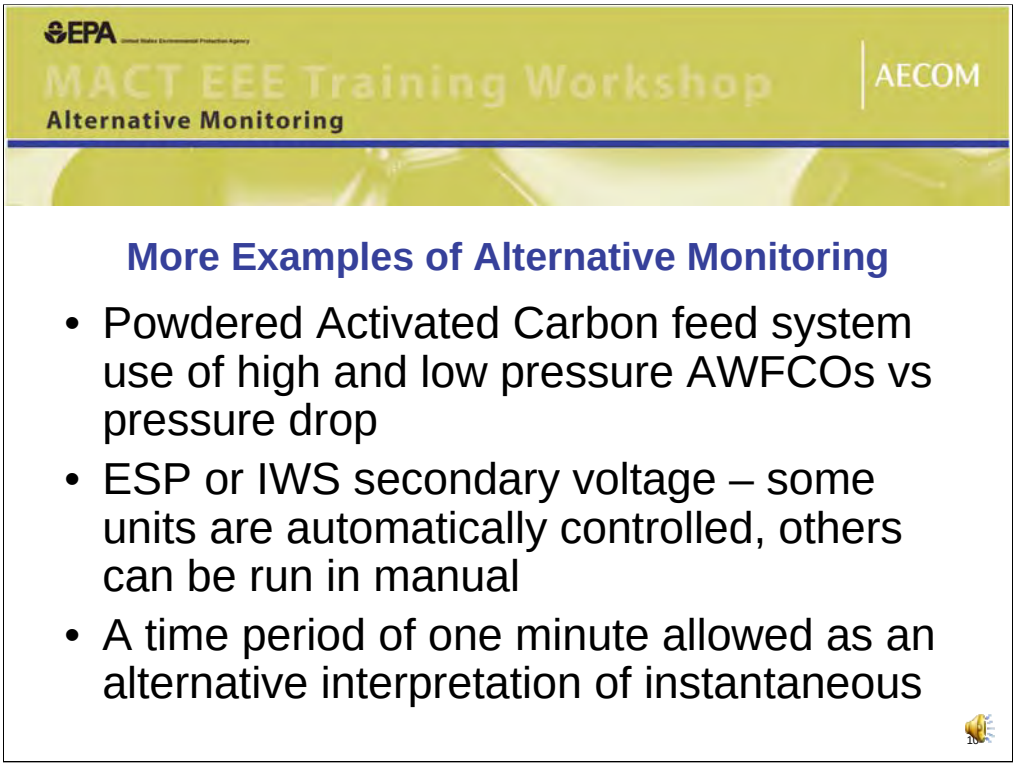
AMA requests under the General Provisions can consider broader issues for both CMS and CEM operations.



There are a number of examples of AMA requests that have been approved. The next several slides provides some examples of approved AMA requests. Approval of an AMA is source specific only. Note that approval of an AMA is source specific only and is not allowable on other units.



These are additional AMA requests dealing with combustion zone pressure monitoring, setting and alternative maximum temperature limit based on CPT results and for location of the CEMs probe where a common stack is used for two sources.



AMA requests address specific elements of APC equipment, such as:

Powdered Activated Carbon feed system use of high and low pressure AWFCOs vs pressure drop;

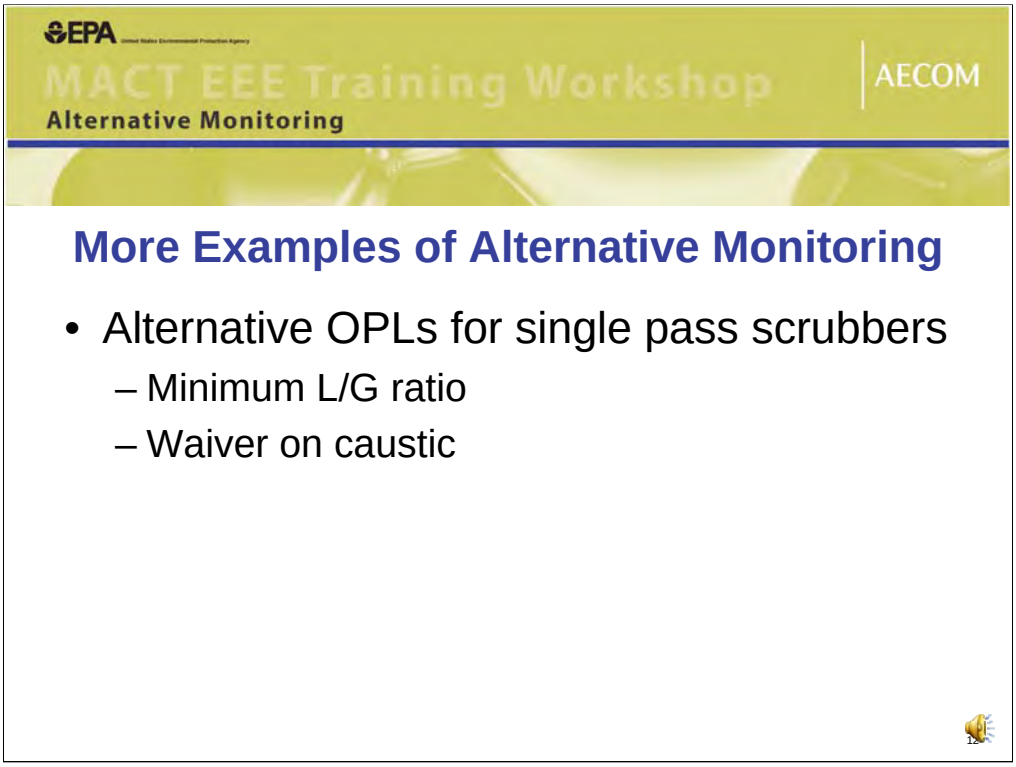
ESP or IWS secondary voltage – some units are automatically controlled, others can be run in manual; and

A time period of one minute allowed as an alternative interpretation of instantaneous

More Examples of Alternative Monitoring

- Dry scrubber sorbent feed – correlated to calculated loading, use of HCl monitor
- Baghouse leak detection system
- Baghouse pressure drop vs minimum and maximum pressures
- For carbon bed performance, pull slip stream, conduct breakthrough testing

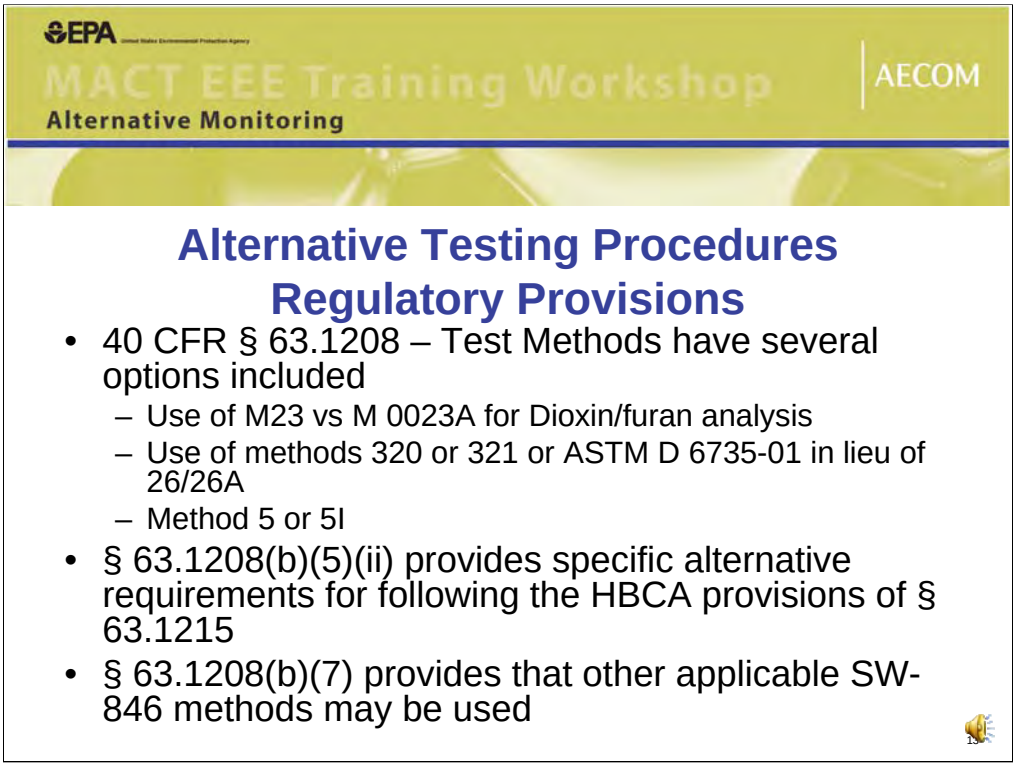
These AMAs also address different approaches to establishing OPLs for air pollution control equipment.



Additional examples include alternative OPLs for single pass scrubbers for parameters such as:

Minimum L/G ratio and

Waiver on caustic usage.

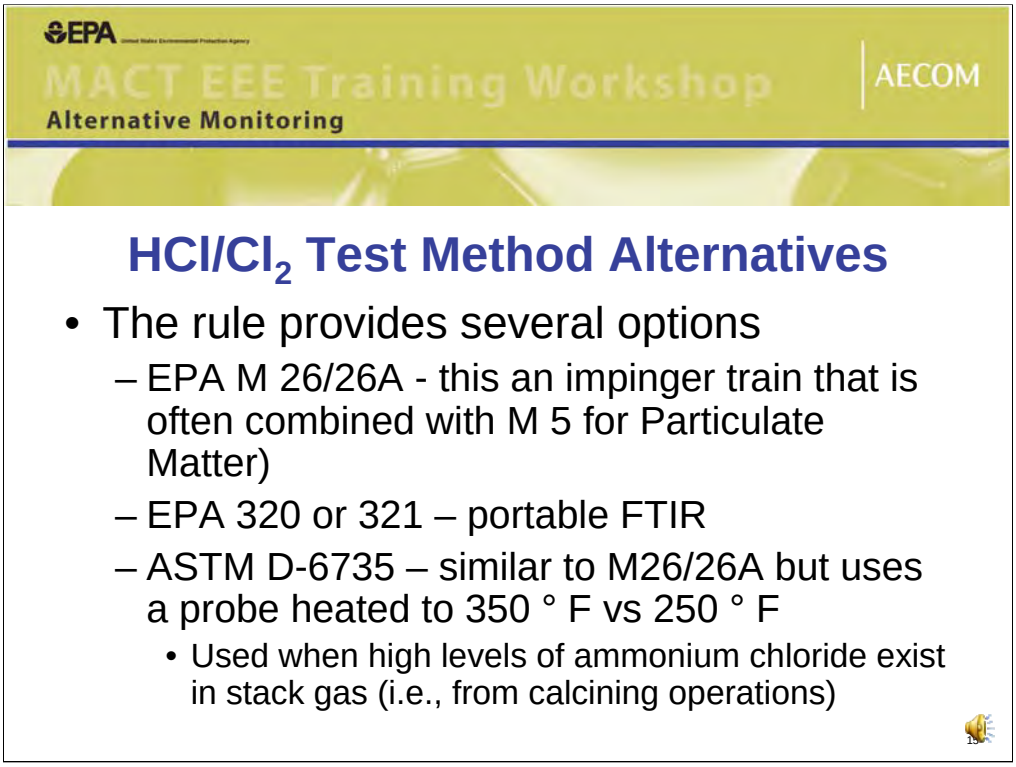


Another of Subpart EEE under this topic is the provision for utilizing alternative testing procedures. This is addressed in 40 CFR § 63.1208 and there are specific alternatives for sampling for D/Fs, HCl and PM. In addition, this section of Subpart EEE also allows for the use of other applicable SW-846 methods, as well.

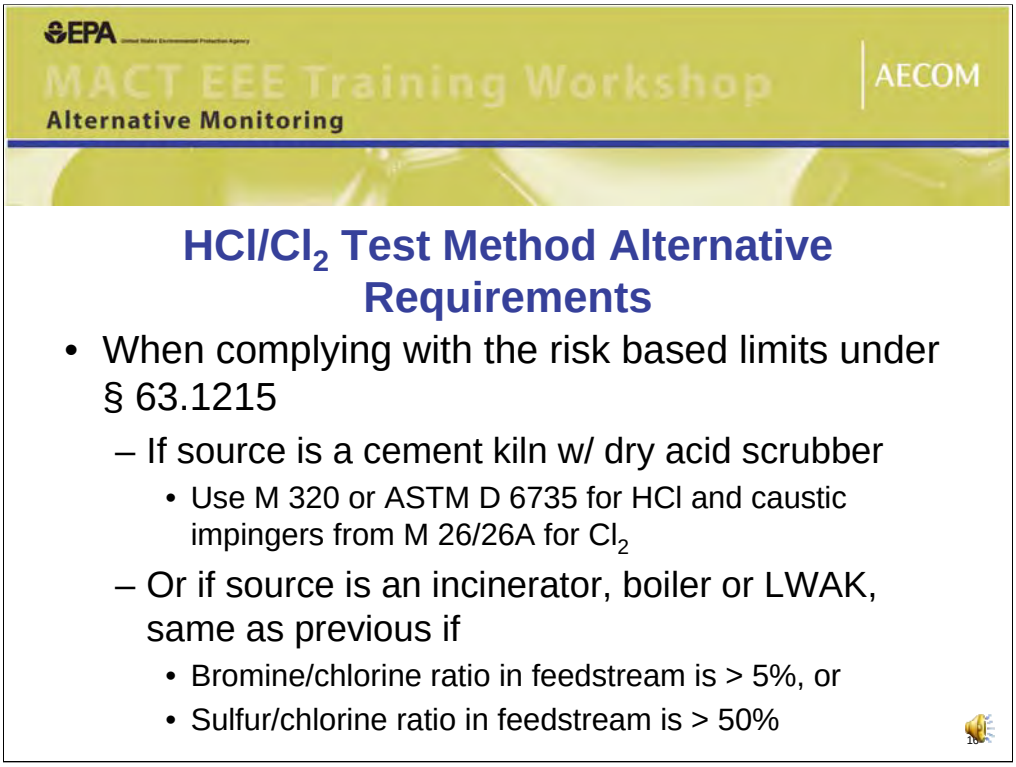
Requesting Method 23

- Facility requests, typically through CPT Plan
- Agency can consider whether
  - Historical testing were substantially below standard
  - Any previous 0023A analyses show low levels in the front half
  - Flue gas with high carbon content solids might be a concern for biasing results low and not be able see the separate recoveries

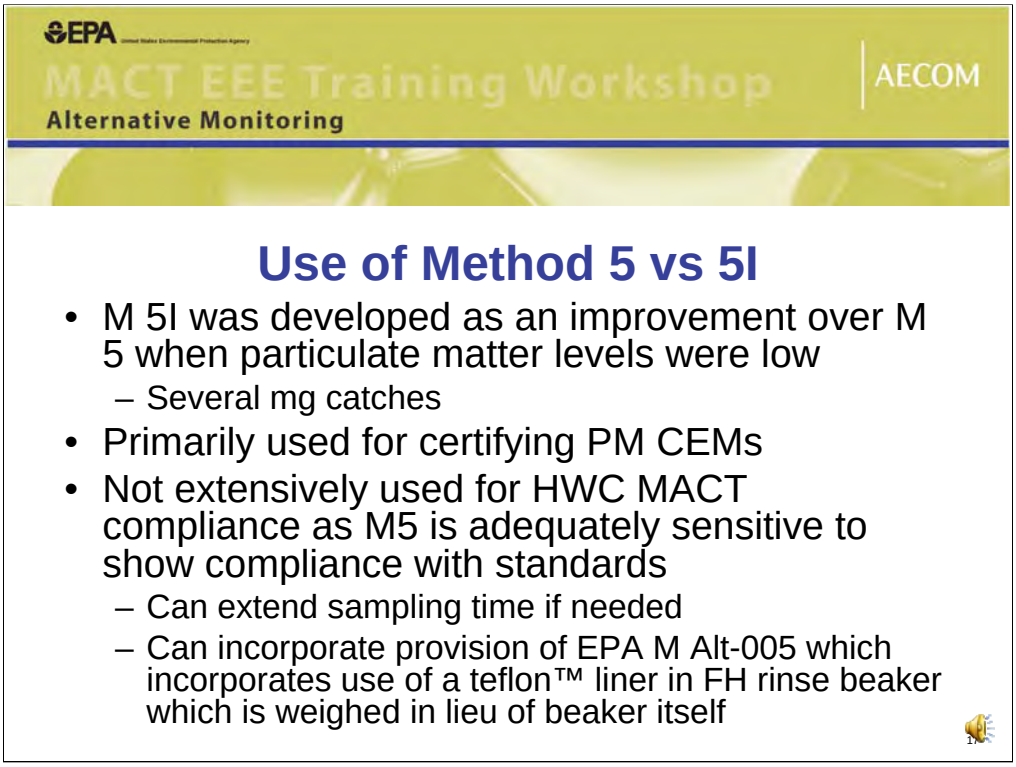
When requesting approval for the use of Method 23 in lieu of Method 0023 A, section 1208 provides several criteria for this. The main difference in the two methods is whether data is reported as separate front half and back results or whether the results are reported as combined FH/BH. In analyzing the fractions separately, additional QA/QC analyses that is performed with this approach can indicate whether there are any matrix issues affecting the results.



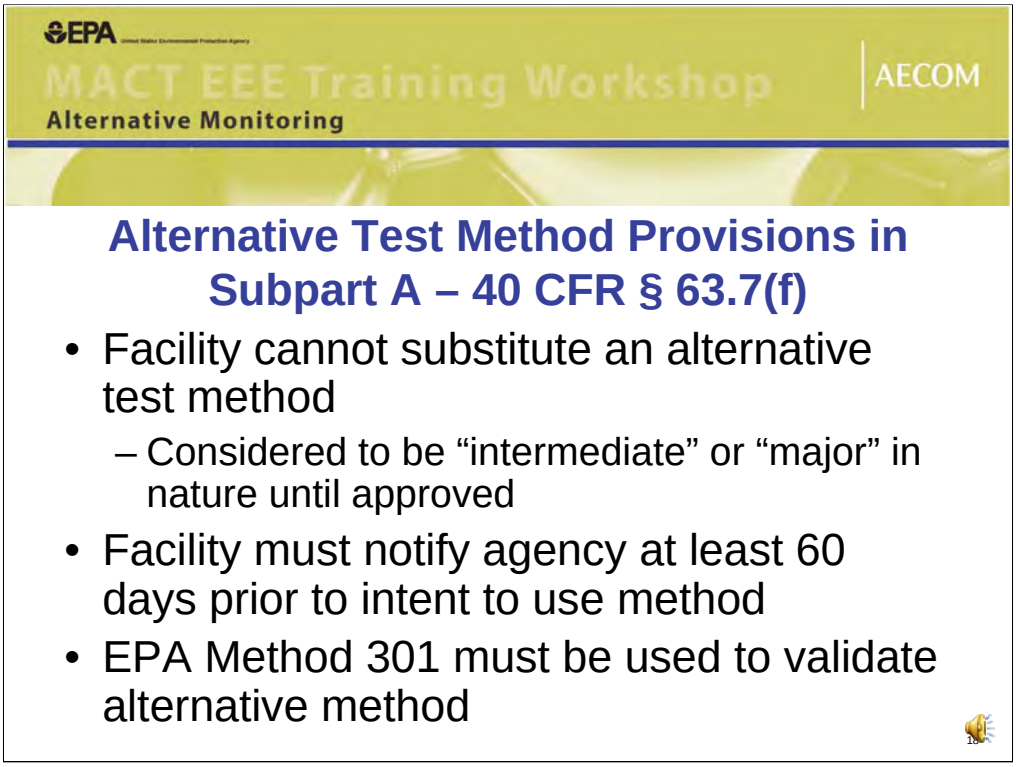
There are a couple of different options for measurement of acid gases. Two of these methods are impinger trains with an option to sample isokinetically or non-isokinetically. The primary differences in these methods are discussed on the slide. The other option is an FTIR method, which only tests for HCl, therefore if this method is followed, some other provision for measuring Cl2 will need to be included in the test program.



When complying with the health base compliance alternative for HCl/Cl2 under 1215, there are certain requirements for testing that must be met.



Subpart EEE also provides an alternative for PM measurement through the use of Method 5i versus Method 5. M 5i requires the use of two PM sampling trains run in parallel that uses a lighter weight filter assembly and requires for stringent agreement between the two trains. Theoretically, 5i can measure lower PM emissions as a result, but generally its primary use is as a certification method for PM CEMs. Generally, Method 5 is used for PM measurement of HWC sources as it sufficiently sensitive. If PM emissions are expected to be very low, sampling times can be extended or the provisions of EPA Method Alt-005 can be used which incorporates a teflon™ liner in the FH rinse beaker that can be removed and weighed instead of the whole beaker.



Should the HWC wish to use an alternative test method other than those just described, this cannot be done without agency approval and to justify this, EPA Method 301 must be used.