
**EMISSION MEASUREMENT CENTER
GUIDELINE DOCUMENT**

**REQUESTS FOR APPROVAL OF ALTERNATIVES/MODIFICATIONS TO TEST METHODS AND
TESTING PROCEDURES****INTRODUCTION**

This guideline addresses (1) the Environmental Protection Agency (EPA) alternative test method approval/disapproval authority under 40 CFR Parts 59, 60, 61, 63, and 65 and (2) describes the EPA process and procedures for requesting and responding to requests for approval of alternative test methods. The alternative test method request and approval process also applies to alternative monitoring in any case where the required monitoring procedures serve as the compliance or performance test method under the applicable Federal rule. Approval of alternative monitoring procedures not serving as the compliance test method are handled by the responsible EPA Regional Office (or, in some cases, a delegated state and local agency) according to the procedures described in the EPA publication No. 305-B-99-004, "How to Review and Issue Clean Air Act Applicability Determinations and Alternative Monitoring", which can be accessed at:

<http://www3.epa.gov/ttn/emc/guidlnd/altmonitoring.pdf>.

BACKGROUND

The General Provisions to 40 CFR Parts 60, 61 and 63 (NSPS and NESHAP, Sections 60.8(b)(2), 61.13(h)(1)(ii), and 63.7(e)(2)(ii)) provide the Administrator of the EPA with the authority to approve alternatives or changes to test methods specified in the subparts to these parts for determining compliance of stationary sources with Federally enforceable emission limitations or standards. Many of the subparts to Parts 60, 61, and 63 reiterate this authority. In Sections 59.104, 59.406, 59.208, and 65.158(a)(2), Parts 59 and 65 (National Volatile Organic Compound Emission Standards for Consumer and Commercial Products and the Consolidated Air Rule) set forth similar Administrator authority.

Delegations 7-119 and 7-121 of EPA's internal Delegations Manual formally clarify that the authority for approval of (1) minor changes to test methods procedures, (2) shorter sampling times/smaller sampling volumes, (3) waivers of emissions and performance test requirements, and (4) alternatives to monitoring requirements can be delegated to the EPA Regional Offices. Authority for approval of major alternatives to methods or equivalent methods can be delegated only within the Office

of Air and Radiation (OAR). As noted above, for the purposes of these delegations, test methods include those monitoring methods (e.g., compliance CEMS) that serve as the performance test method under a Federal rule.

In many cases, the Regional Administrators have delegated the authority to approve minor changes (alternatives) to test methods and minor changes to monitoring procedures to the State or local agencies responsible for implementing the NSPS and NESHAP. Within OAR, the authority for approval of major changes to test methods has been delegated down through the Office of Air Quality Planning and Standards (OAQPS) to the Leader of the Measurement Technology Group.

As further clarification, it is our understanding that these delegations should not be applied to programs operated under the OAQPS/Air Quality Policy Division (AQPD) Director's discretion (i.e., those completely delegated to State or local agencies with little or no EPA oversight) nor to initial State Implementation Plan reviews. For these programs, the agency will provide specific guidance on what constitutes acceptable test methods through the regulation or associated guidance material (e.g., the Title IV background documentation).

PROCESS AND ACCEPTANCE CRITERIA

A request for a major change to a test method will receive rigorous review. Basic principles of these reviews will be:

- (a) Any approved alternative test method will produce results adequate for the Administrator's determination of compliance (see 40 CFR Parts 60 and 63, Sections 60.2 and 63.2); and
- (b) The change in the testing method or procedure will not affect the stringency of the applicable regulation.

The requester should explain the compelling reasons prompting the request; that is, a request for any change should address significant deficiencies in applying the prescribed procedure or provide meaningful improvements achieved over existing procedures or methods. Examples of such supporting reasons include:

- (a) Overcoming significant interferences or biases (e.g., addition of an HCl-filled impinger to remove NH₃ from an SO₂ gas sample);
- (b) Allowing for new technology or approaches for improved

accuracy, lower cost procedures, or increased applicability (e.g., use of tunable diode laser technology in lieu of Fourier Transform infrared technology for single target compound measurement);

(c) Allowing alternative measurement locations for hybrid processes subject to multiple regulations (e.g., alternative measurements and emission calculation procedures for combined cycle, gas turbine/fossil fuel-fired boiler units).

Most importantly, acceptance of an alternative test method shall be based on substantive technical support information. While chemistry, engineering, and economic evaluations will be important to the OAQPS reviews, requests must also include support data of the type described in Method 301 of Appendix A, Title 40 Part 63. The promulgation of Method 301 included the requirement that any non-validated method proposed for demonstrating conformance with a federal emission limitation or standard be subject to the requirements in Method 301. Supporting information includes:

- (a) direct comparisons with existing reference or compliance test methods;
- (b) precision and bias determinations (e.g., duplicate test trains and multiple test runs under a range of test conditions); and
- (c) detailed and documented test procedures (recommended format at: <https://www.epa.gov/sites/default/files/2020-08/documents/gd-045.pdf>)

SPECIFIC CONTENT OF REQUEST

Requests are typically made and approvals granted on a facility-specific basis; however, there are some cases where a broader request and approval (e.g., source category-wide) may be appropriate. These cases are determined by the delegated authority as discussed in the Federal Register (72 FR, 1/10/2007, 4257; see [govinfo.gov/content/pkg/FR-2007-01-30/pdf/E7-1338.pdf](https://www.govinfo.gov/content/pkg/FR-2007-01-30/pdf/E7-1338.pdf)). As they are approved, broadly applicable alternative test methods or broadly applicable method modifications are posted on the EPA/EMC website at <https://www.epa.gov/emc/broadly-applicable-approved-alternative-test-methods> and summarized yearly in a Federal Register Notice announcing these decisions.

A complete letter of request for an alternative test method approval should include:

- Name(s), location(s), and affected units for facilities to which requested testing alternative is to apply.
- Applicable Federal testing requirement (cite the subpart and paragraph of 40 CFR Part 59, 60, 61, 63 or 65) to which facility is subject and include a description of the requirement.
- Detailed description of the alternative testing procedure(s); if a new test method is proposed, attach detailed method procedures, preferably in the format described at <https://www.epa.gov/sites/default/files/2020-08/documents/gd-045.pdf>, which ensures that all key elements of a method are addressed. In either case, ensure that relevant quality control procedures to be used to demonstrate that measurement results are sufficiently precise and accurate to meet the requirements of the applicable rule are either referenced or explained in detail.
- Justification for alternative testing procedure (see discussion in section on Process and Acceptance Criteria above) including all supporting test data, such as Method 301 comparison testing.
- Names, addresses, and e-mails for responsible state/local agency and EPA Regional Office contacts.
- Requestor name, address, telephone number, and e-mail address to allow timely contact should the request be deficient or need clarification.

Submit complete requests for review of alternative test methods to:

Leader, Measurement Technology Group
Office of Air Quality Planning and Standards
U.S. Environmental Protection Agency (Mail Code E143-02)
Research Triangle Park, NC 27711

Or as a pdf via email to:

Johnson.steffan@epa.gov

Copies of the request should be sent to the responsible EPA Regional Office and to the appropriate state and local agency contacts.

Questions regarding these procedures should be directed to Kim Garnett at 919-541-1058 or garnett.kim@epa.gov.