

**SANTA BARBARA COUNTY AIR POLLUTION CONTROL DISTRICT
REGULATORY COMPLIANCE DIVISION**

POLICIES AND PROCEDURES

Policy No.: LD.10

Draft:

Supersedes Date: 06/18/90

Final: X

Date: August 19, 1996

Pages: 10

Topic: Source Test Observation and Enforcement

Distribution: All Policy Holders

This policy and procedures document provides guidance to APCD personnel in the observation of source tests and enforcement actions pertaining to source tests. This policy also addresses OCS boat testing enforcement procedures (Section B.4). Source tests are conducted for the purpose of demonstrating compliance with APCD rules, state regulations, permit conditions, special agreements, or gathering emissions data. Source tests are conducted during the Source Compliance Demonstration Period (SCDP) to determine compliance with the Authority to Construct (ATC) emissions and process limits. Source tests are generally conducted on an annual basis following Permit to Operate (PTO) issuance. Source tests may also be conducted at any time APCD requires that compliance be demonstrated or emissions be quantified.

APCD reviews source test plans, observes source tests, and reviews source test results to ensure that the results are representative, accurate, and precise. APCD must have confidence in the quality of the test results to determine compliance, evaluate emission controls, and assess attainment strategies. The major activities associated with source test review and observation consist of estimating costs and securing funding, source test plan review, preparation for source test observation, source test observation, observation trip report, test report review, and compliance/enforcement assessment. Each of these activities are presented below.

COST ESTIMATE AND SOURCE OF FUNDING

The source test observer is a staff member or contractor budgeted on a cost reimbursable or fee basis. Funds must be available for source test work prior to initiating source test plan review. The observer must determine if sufficient funding is available or procure funding for the intended project before expending any effort. The supervisor of the source test section should be aware of new permits and expected test dates of existing permits so that sufficient time is available to secure funding without delaying the source test plan (STP) review process.

In general, compliance source tests for permits processed on a cost reimbursement basis, toxics source tests, and CEMS activities will be funded on a cost reimbursable basis. Projects that are reimbursable normally maintain large deposits and many activities other than source testing are being charged to the deposit. For reimbursable projects, the project manager should be made aware of the schedule of the testing activity, and the estimated number of hours the observer will expend for STP review, observation and test report review. The project manager should determine if the existing deposit is sufficient. The observer must wait for Regulatory Compliance Division (RCD) project manager approval before initiating work on the project.

For fee based permit projects, source test observation costs are recovered based on a fee consistent with APCD Rule 210, Schedule C. The observer must write a letter to the source requesting payment of the fee. The fee to be assessed is determined by the number of tests and the type of equipment tested. Review of STP's or any other related work must not proceed until the fee is received by the APCD accounting department. If a source test must be repeated due to problems with compliance, it may be necessary for the observer to request an additional fee from the source. When determining if the test fee must be reassessed prior to a retest, source test staff should review APCD expenses incurred to date and the estimated expenses expected for the retest relative to the amount of the original fee.

SOURCE TEST PLAN REVIEW

A source test plan (STP) is required to be submitted and approved for all source testing programs. If a STP is not approved, the results may not be accepted as valid by APCD. The STP is generally required to be submitted at least 30 days prior to test date. Certain permits may have different requirements and the observer must be familiar with the requirements of the particular permit.

If the permit is very specific in the required time of submittal and the STP is not submitted on time, several types of action may need to be taken. If the STP must be submitted by a certain number of days prior to the SCDP, the SCDP may be required to be postponed. If the STP must be submitted a certain number of days prior to the test date, the test date may be required to be postponed. If the STP must be submitted on a specific date and is not received by that date, the case should be referred to the appropriate enforcement supervisor.

If the permit is not specific about STP submittal, the observer should determine if the submittal date allows sufficient time for review based upon current workload, complexity of the testing, familiarity with the source, urgency in obtaining emissions data, and other factors as appropriate. If the observer determines that the STP cannot be reviewed and approved prior to the test date, the observer should inform the source test section supervisor. If directed by the supervisor, the observer should notify the source operator that the test will need to be rescheduled to a later date.

The STP must be reviewed for consistency with the permit (including load requirements), APCD's Source Test Procedures Manual (STPM), APCD's policy and established source test methods. With prior APCD approval, a previously approved STP may be accepted by APCD in lieu of an operator submitting a new plan, if there are no major changes to the test program. In all cases, the STP must be approved in writing prior to test initiation. APCD comments to the source operator concerning the STP should be constructive, and any requests for supplemental information should be clearly stated. APCD comments and approval should only be included in the same letter if the comments are minor.

Many permits require written notification of the test date be submitted to APCD at least ten days prior to test initiation. If the test date was included in the original STP, this requirement has been met. If the test date is changed or not included in the original STP, the observer must make sure that the notification requirements are met. If a test date is changed after receipt of the written notification, the source need not resubmit a written notification letter, if deemed appropriate by source test staff via telephone.

PREPARATION FOR SOURCE TEST OBSERVATION

The source test observer must verify that the STP is correctly implemented. The observer must be familiar with the source permit, APCD policy, applicable rules, the APCD's STPM, the STP, the test methods to be used, and any other communications that are relevant to the test program. The observer should bring the STP, STPM, copy of the source permit, and appropriate observation forms to the test site. The observer should contact the APCD inspector assigned to the source to be tested to allow the inspector the opportunity to be at the site during testing.

The observer must arrange for transportation to the test site. This may mean reserving a county vehicle several days in advance. The observer should be familiar with the safety requirements of the facility at which the testing is conducted. The observer must arrive equipped with the proper safety equipment. Normally this equipment includes a hard hat, safety glasses, safety shoes, and hearing protection (refer to RCD P&P #I.E.1: Safety). If a considerable amount of time has

passed between approval of the STP and the test date, the observer should contact the source several days prior to the test to verify that the test will commence as planned.

OBSERVATION

The observer must determine if each part of the test program is consistent with the STP. If a procedure or piece of equipment is significantly different than that contained in the STP, the observer should inform the source operator or the test contractor. Of particular concern is the level of equipment operation during the test relative to the permitted maximum. Since tests are usually intended to be conducted at the maximum load allowed by permit, the observer must verify that the equipment is operating at the proper load. This operating requirement must be defined in the STP. If questions arise concerning consistency with the STP that cannot be addressed by the observer, the observer should contact the source test section supervisor for guidance. The source operator or the test contractor should immediately respond to bring the test program into compliance with the STP. All test data or samples collected in a manner not consistent with the STP will be invalidated by the observer. The test contractor may propose an alternate procedure than that contained in the STP. The observer will determine that the alternate procedure is acceptable before allowing the test contractor to deviate from the STP. If the observer cannot make such a determination, s/he shall verify the acceptability of the alternate procedure with the source test section supervisor before allowing the operator to continue.

The observer should witness as much of the test program as possible. At a minimum, a complete test run of each type of test should be observed for each emissions source tested. The test contractor may be allowed to initiate testing prior to the arrival of the observer. However, the observer may invalidate test data and samples collected prior to his/her arrival, if evidence suggests that the data or samples were not obtained consistent with the STP. The test contractor may be allowed to continue testing after the observer has left, if the observer is confident that the testing will be conducted consistent with the STP. If there is any indication that testing may be problematic, the observer should not allow tests to continue after his/her departure.

The observer must complete the instrument method or wet test method observation forms as appropriate for each test run. The observation forms must be as complete and detailed as possible to allow the test report reviewer to compare the final test results to the preliminary results and raw data.

Test data or samples may be invalidated by the observer at the test site or upon review of the test report. See Section 4.16 of the STPM. Invalidation at the test site may be due to improper source operating conditions, loss or contamination of samples, improper sampling procedures or equipment, or improper sample recovery procedures. Invalidation upon test report review is normally due to improper sample analysis procedures or equipment, and loss or contamination of samples or data.

The approved STP is the primary guideline to determine the validity of the test program. All deviations from the STP or the referenced test method must be approved by the observer or source test section supervisor prior to implementation. The STP may not be entirely consistent with the STPM due to peculiarities of the source permit or the source itself. In this case, the STP takes precedence.

TRIP REPORT

For tests which were problematic or anticipated to indicate noncompliance, the observer should complete an observation trip report on the work day following the observation. The trip report should be in the form of a memo to the project file with a copy going to the source test section supervisor and the appropriate project manager. The trip report should contain an overview of the test program including preliminary results, estimated compliance status and any problems experienced. The completed observation forms should be filed in the appropriate source test section folder. The trip report should reference appropriate observation forms (as applicable). Such a report is required for a test program which included any deviation from the STP or possible compliance problems. If the test was not problematic, notification of the project manager of test status will suffice.

REPORT REVIEW

The person reviewing the test report should be the same person who observed the test program. In the case somebody other than the observer reviews the report, they should get the test observation notes from the observer. The reviewer should determine the date of test report submittal and verify that the date of submittal complies with the source permit. Generally, the test report must be submitted within 45 days of test program completion.

Test results are normally not invalidated due to errors in data reduction, calculations or interpretation of data. Valid results can usually be determined from the raw data contained in the test report. If report raw data allows the reviewer to correct portions of the test report, such corrections should be entered into the report. Any significant corrections must be noted in the correspondence, from APCD to the source, on test report status (i.e., report acceptance letter or request for additional information/corrections). Test results may be invalidated if the test program was not observed by APCD. This decision should be made by the RCD Manager.

The reviewer must be familiar with the STP and the source permit. The reviewer should verify that the test program has satisfied the requirements of the permit. The reviewer should check the raw data, data reduction procedures, data transformation, and calculations for at least one test run of each test type. For instrument testing this will include checking that the strip charts were read correctly, the calibration drift is acceptable, the pollutant values are correctly calculated and averaged, and the mass emission values are correctly calculated.

The reviewer should write a test report review letter to the source operator with copies to the project file, project manager, and source test section supervisor. The letter should include the compliance status of each emissions source tested, and final APCD approved test results if they differ from those presented in the report.

COMPLIANCE STATUS/ENFORCEMENT

1. General

A. Compliance Determination

Source tests generally include three separate test runs, with each of the three test runs forty to sixty minutes in length. Compliance with permit limits or APCD rules and regulations are determined by comparing the applicable emission limit with the average of the three source test runs, with this average rounded to the same number of significant figures as the emission limit. Thus, if one test run exceeds the emission limit, but the average of the three runs indicates compliance, then the source is deemed to be in compliance with the permit limit. If the first test run indicates noncompliance, the source is not allowed to change operations to induce the average of the three runs to indicate compliance. Since a mid-test change in operations is not consistent with the STP, any such change not pre-approved by the APCD observer invalidates any subsequent tests. Details on determination of noncompliance on-site is provided in a separate section below.

B. Compliance Status After Discovery of a Failed Test

When a source fails a source test, a Notice of Violation (NOV) shall be issued as detailed in the following sections. If the test is part of SCDP to verify emission limits in a new permit or it is the initial test to verify emission limits for a reevaluated permit, APCD may not pursue enforcement action. However, if any testing shows a source does not comply with a APCD prohibitory rule, a NOV will be issued. For sources in SCDP, refer to RCD P&P #V.B for guidance. For first time source tests implemented upon issuance of a reevaluated permit, refer to RCD P&P #V.J. A failed source test must be followed up by a repeat test to verify compliance. Until a retest of the affected equipment verifies compliance, each day of operation subsequent to the day of discovery may be a separate violation unless the source operator takes action which APCD accepts as reasonably bringing the source back into compliance. If the owner/operator believes that they are or will be in violation, they may seek

breakdown and/or variance protection from enforcement action consistent with APCD Regulation V. The day of discovery is defined as: (1) the test day for noncompliant determinations made on-site; or, (2) for a violation discovered after receipt of the test report, the day that the operator was informed of the violation by APCD.

If the source is able to provide evidence that the cause of the violation has been remedied, or that the violation was an aberration, APCD may find no further enforcement action is necessary for the interim period between the test date and a successful repeat source test. For example, assume a source which includes a baghouse fails a particulate matter (PM) test. Upon report review, the source realizes that the baghouse pressure drop was smaller than normal due to tears in several bags in the baghouse. Replacement of the bags resulted in an increase in the pressure drop to appropriate values. In such a case it is logical to assume that compliance has been reattained (the retest will confirm this). Another example of acceptable operation post-discovery of a violation is process curtailment such that extrapolated emissions would likely be less than the permitted limit. In such a case, APCD must accept proposed extrapolation methods. In any event, a repeat source test is always required to verify compliance.

The repeat source test should be completed as expeditiously as possible. APCD source test staff will be prepared to provide support for test observation with little advance notification. If a source does not cooperate with the request to expeditiously retest, APCD may order a retest in accordance with APCD Rule 210.D.1.b, and Sections 42303 and 41511 of the California Health and Safety Code. Specifically, Rule 210.D.1.b states that APCD may require a source test if it has reasonable cause to believe emissions from a source violate any rules and/or permit conditions.

C. Source Test/CEMS Data Precedence

For sources with continuous emission monitoring systems (CEMS), the annual source test will generally occur in conjunction with the CEMS certification audit. Due to the acceptable accuracy deviation allowed for CEMS, it is possible that the source test will indicate noncompliance while the CEMS indicates compliance (or vice versa). In such a circumstance, the source test data takes precedence over CEMS for determining compliance. If the CEMS reports a violation while the source test indicates compliance, the source should be granted latitude when determining compliance only for the time that the source test is occurring.

2. On-Site Compliance Assessment

The preliminary test results obtained by the observer at the test site may indicate that the emissions source is not in compliance with APCD rules, state regulations, permit conditions, or special agreements. If the preliminary test results indicate a large deviation from compliance, the test program should be continued until enough data is collected to demonstrate non-compliance. The observer or source test section supervisor should determine the amount of data needed to demonstrate non-compliance. At a minimum, a single run must be completed. For example, if the test indicates that NO_x exceeds permitted limits, at least one of the three, forty minute runs must be completed.

If a relatively small adjustment or repair will bring the source into compliance within a few hours, the source operator should be advised to do so and repeat the test program. If a small adjustment or repair will not bring the source into compliance (based on the repeat test), the source operator should be advised that each subsequent day of operation may be considered a separate violation.

In all cases, if a test clearly shows the source is out of compliance, the source test observer shall issue an NOV on-site. In addition, the observer shall provide the operator with the ADVISORY form (included at the end of this P&P), and inform the source operator of APCD's breakdown and variance procedures. If the observer has any uncertainty about the compliance status of the source, they should contact the source test section supervisor for direction.

3. Compliance Determination During Source Test Review

If upon review of the source test report a violation is discovered (reference Section 6 above), the reviewer should discuss it with the APCD project manager. After verification that a violation occurred, the reviewer should file an NOV action form with the project manager. The project manager shall process and serve the NOV, and should immediately notify the source of the violation and inform them of breakdown and variance procedures. The NOV shall be sent by certified mail and should be accompanied by the ADVISORY form at the end of this policy. As detailed above, unless the source can provide evidence that the violation has been remedied to APCD's satisfaction, each subsequent day of operation not covered by a breakdown or variance is subject to enforcement action.

4. Compliance Determination For OCS Crew and Supply Boats

The attached OCS Crew and Supply Boat Source Test Enforcement Matrix provides guidance for the review of boat source test results. The boat source test results should be reviewed for the pollutants and emission quantities specified in the Enforcement Matrix. The source test staff reviewer should summarize the findings based on the matrix and identify any non-compliance concerns to the applicable project manager. Any uncertainties in data interpretation should be resolved with the supervisor of the source test group.

After the determination of the compliance status of a source's boat(s) or engine(s) has been completed, the project manager will follow routine procedures for notifying the source of their compliance status and any follow-up actions required.

ADVISORY

As a result of a failed source test, you have been issued a Notice of Violation for failing to comply with an emission standard as stated on your Permit to Operate or in an APCD rule.

AN ADDITIONAL APCD APPROVED SOURCE TEST MUST BE PERFORMED AFFIRMATIVELY SHOWING THE EQUIPMENT TO BE IN COMPLIANCE WITH THE APCD'S RULES AND REGULATIONS.

Until a retest of the affected equipment verifies compliance, each day of operation subsequent to the day of discovery may be a separate violation unless action is taken by the operator which APCD accepts as reasonably bringing the source back into compliance. If the owner/operator believes that they are or will be in violation, they may seek breakdown and/or variance protection from enforcement action consistent with APCD Regulation V. A variance will, if granted, allow the operation of the non-complying equipment for the purpose of performing remedial repairs and the retest of the equipment.

It is the responsibility of the permittee to schedule an additional source test. The source test must be performed in accordance with APCD's Source Test Procedures Manual.

Please contact Brian Shafritz, Engineering Supervisor, Emissions Measurement and Modeling Section, (805) 961-8923, to arrange for a source test.

ATTACHMENT

OCS Crew and Supply Boat Source Test Enforcement Matrix

This matrix clarifies enforcement guidance provided in District P&P I.D.10 (Source Test Observation and Enforcement) for determining the compliance status of a boat or boat engine based on results of annual source tests required by OCS PTOs.

Reminder: Relief via Variance may be available for continuing non-compliant operations, once non-compliance is determined by APCD.

Pollutant or Item	NSR Source OCS Operators ¹	Non-NSR Source OCS Operators (No previous onshore ATC with boat condition before OCS PTO issued September 4, 1994)
NO_x	<p>1) Enforce OCS PTO² lb/hr limit (sum of all main engines) on a <u>per boat</u> basis</p> <p>2) Enforce OCS PTO² lb/kgal factor <u>per engine</u> (e.g., 8.4 g/bhp-hr basis)</p> <p>For both of the above, in either case,</p> <p>a) If exceed OCS PTO² limits but not onshore ATC/PTO limits, no NOV. Adjust failed engine(s) then retest³ to demonstrate compliance. If still non-compliant, modify OCS PTO² up to ≤ onshore ATC/PTO limits, with NSR not likely.</p> <p>b) If exceed OCS PTO² <u>and</u> onshore ATC/PTO limits, issue NOV. Adjust failed engine(s) then retest³ to demonstrate compliance with both permits. If still non-compliant, modify OCS PTO² without NSR, then modify onshore ATC/PTO with NSR likely.</p>	<p>1) Enforce OCS PTO lb/hr (sum of all main engines) on a <u>per boat basis</u></p> <p>2) Enforce OCS PTO lb/kgal factor <u>per engine</u> (e.g., 8.4 g/bhp-hr basis)</p> <p>For both of the above, in either case,</p> <p>a) Enforcement approach: In lieu of NOV, adjust failed engine(s) then retest³ to demonstrate compliance. If still non-compliant, modify OCS PTO without NSR to incorporate new lb/kgal factor(s) and/or emission limit(s) based on <u>first</u> source test sequence (including retest) of <u>each</u> boat.</p> <p>b) Review any modified OCS PTO limits (per above) for Title V triggers.</p>

Footnotes for all pages

¹ Sources which have been subject to New Source Review (NSR) Rule 205.C. These include: a source with onshore ATC which underwent NSR prior to issuance of OCS PTOs on September 4, 1994; also, a non-NSR source which has become subject to NSR due to permit modification.

² For Exxon, or other sources with Boat Monitoring and Reporting Plans, add "(and/or Boat Plan)"

³ "Retest" means repeating the complete source test for all pollutants of the original test on each adjusted engine. Retesting must be carried out within a reasonable time frame (e.g., 30 calendar days after APCD notification date).

Pollutant or Item	NSR Source OCS Operators ¹	Non-NSR Source OCS Operators
ROC, CO	<p>1) Enforce lb/hr limit (sum of all main engines) on a <u>per boat</u> basis, as follows:</p> <p>a) If exceed OCS PTO² limits but not onshore ATC/PTO limits, no NOV. Adjust failed engine(s) then retest³ to demonstrate compliance. If still non-compliant, modify OCS PTO² up to ≤ onshore ATC/PTO limits, with NSR not likely.</p> <p>b) If exceed OCS PTO² <u>and</u> onshore ATC/PTO limits, issue NOV. Adjust failed engine(s) then retest³ to demonstrate compliance with both permits. If still non-compliant, modify OCS PTO² without NSR, then modify onshore ATC/PTO with NSR likely.</p> <p>2) Enforce OCS PTO lb/kgal factor <u>averaged over all main engines</u> on a <u>per boat</u> basis, as follows:</p> <p>a) If <u>average</u> lb/kgal factor meets both OCS PTO and onshore ATC/PTO factors, no NOV. Use original OCS PTO factors in calculating quarterly and annual emissions (unless source wants to commit to lower factors documented by source test, in which case they apply for OCS PTO mod via ATC.)</p> <p>b) If <u>average</u> lb/kgal factor exceeds OCS PTO factors or onshore ATC/PTO factors, or both, but emissions comply with <u>all</u> OCS PTO emission limits (lb/hr, lb/day, tpq, and tpy if known), no NOV. Unless source adjusts failed engine(s) and retests³, and new average factor complies with lb/kgal factors in OCS PTO and onshore ATC/PTO, modify OCS PTO without NSR; modify onshore ATC/PTO emissions factor with NSR likely. Use new permitted lb/kgal factor in calculating future quarterly and annual emissions.</p> <p>c) If <u>average</u> lb/kgal factor exceeds both OCS PTO and onshore ATC/PTO factors <u>and</u> emissions exceeds any OCS PTO emission limits (lb/hr, lb/day, tpq, or tpy if known), issue NOV for emissions violation(s). Unless source adjusts failed engine(s) and retests³, and new average factor complies with lb/kgal factors in OCS PTO and onshore ATC/PTO, modify OCS PTO without NSR; modify onshore ATC/PTO with NSR likely. Use new permitted lb/kgal factor in calculating future quarterly and annual emissions.</p>	<p>1) Enforce OCS PTO lb/hr (sum of all main engines) on a <u>per boat</u> basis.</p> <p>2) Enforce OCS PTO lb/kgal factor <u>averaged over all main engines</u> on a <u>per boat</u> basis.</p> <p>For both of the above, in either case,</p> <p>a) Enforcement approach: In lieu of NOV, adjust failed engine(s) then retest³ to demonstrate compliance. If still non-compliant, modify OCS PTO without NSR to incorporate new lb/kgal factor(s) and/or emission limit(s) based on <u>first</u> source test sequence (including retest) of <u>each</u> boat.</p> <p>b) Review any modified OCS PTO limits (per above) for Title V triggers.</p>

Pollutant or Item	NSR Source OCS Operators ¹	Non-NSR Source OCS Operators
SO _x	Confirm mass balance equations (e.g., OCS PTOs Sec. 10.1) and enforce lb/hr limit (sum of all main engines) on a <u>per boat</u> basis.	Ditto left
PM	No OCS PTO source test requirement	Ditto left
Fuel Gas	<ol style="list-style-type: none"> 1) Weight % sulfur: if exceeds Diesel Fuel Sulfur Limit of OCS PTO², issue NOV. 2) Fuel Density and HHV: Use in mass balance calculations for SO_x. 3) Fuel usage not enforced via source test. Enforce OCS PTO's daily, quarterly, annual limits via quarterly reports. 	Ditto left

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Policies and Procedures Memoranda are intended to provide guidance to agency staff, applicants, and the public relative to standardized District procedures. These policies and procedures shall not be interpreted in conflict with District Rules and Regulations or County Administrative policies and may be modified or updated periodically without advance notice.