

SANTA BARBARA COUNTY
AIR POLLUTION CONTROL DISTRICT
POLICIES AND PROCEDURES

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Topic:	<u>Managing the Source Compliance Demonstration Period</u>		
Distribution:	<u>APCD Staff</u>		

This policy and procedure document provides guidance to project managers and inspectors on the proper procedures to follow in managing the Source Compliance Demonstration Period (SCDP) allowed for in Authority to Construct (ATC) permits.

APCD rules do not allow non-exempt sources to operate without a Permit to Operate (PTO). However, ATC permits issued by the APCD have a condition which allows for startup by providing for a SCDP. The SCDP serves two purposes. First, it allows a source (permit holder) to operate in a test mode after construction and before the PTO is issued for the purpose of performing equipment "shakedown" and to conduct any performance tests and compliance demonstrations required by the APCD. Second, if the source has demonstrated compliance with the ATC and has submitted a PTO application, the SCDP allows for temporary operation while the APCD processes the PTO application.

This policy and procedure primarily addresses managing the SCDP for large projects such as the major oil and gas facilities in the county. For guidance in conducting the SCDP for small fee and reimbursable projects, please refer to section entitled "SCDP FOR SMALL SOURCES" (page 8) of this policy.

PRE-SCDP PHASE

No activity which could be construed as start-up (e.g., the introduction of hydrocarbon gases or fluids to an oil and gas facility) is allowed to take place until the source has notified the APCD in writing, and the APCD has authorized in writing, the start of SCDP. Additionally, no equipment which is capable of emitting air pollutants (including exempt equipment but excluding construction equipment) may be operated until the authorized

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commencement of SCDP. Under specific circumstances, APCD Engineering Policy No. 6100.007.88 allows for the testing of emergency equipment such as firewater pumps and emergency generators prior to SCDP.

When permit enforcement for a project becomes the responsibility of the Permit Compliance Section, after the ATC is issued, the assigned project manager will prepare a list of ATC requirements which must be completed by the source. A schedule for satisfying these requirements will be included by the project manager. The source must receive APCD approval for the completion of the requirements prior to commencement of SCDP. Examples of required items may include preliminary component counts, as-built drawings, Continuous Emission Monitoring (CEM) plans, offset plans, odor monitoring plans, episode plans, and source test plans. The **PRE-SCDP CHECKLIST** (attached to this policy) should be used as a guide. The project manager should confirm that all the pre-SCDP requirements have been completed on a schedule within any time frames set out in the ATC.

Once the pre-SCDP requirements have been met and the APCD receives a written request from the source for SCDP commencement, the APCD shall provide written approval for the start of SCDP. Include in the approval that the source provide written notice to the APCD 72 hours in advance of the actual start of SCDP unless provided otherwise by permit conditions. Note that the source is not required to start their SCDP on any specific date. Rather, the 72 hour notification requirement in the APCD-approval letter is the earliest time at which SCDP can commence (unless permit conditions specify otherwise).

Operation -phase offsets, if required by the ATC, must be in place before commencement of SCDP. The source must maintain project emissions liability during SCDP at or below the operation -phase offsets provided.

ENFORCEMENT DURING SCDP

During SCDP, the source must abide by all APCD rules. These include Regulation III (prohibition) and Regulation IX (all applicable subparts of New Source Performance Standards [NSPS], Title 40 CFR Part 60) and any permit condition which requires the source to conduct ambient air quality monitoring. Any infraction of these rules, including those rules which limit emissions, or of an ambient monitoring permit condition, shall be considered grounds for APCD enforcement action against the source. If a new or modified Prohibitory rule requires an ATC or PTO modification for the source to comply (e.g., APCD Rule 333), the source must still comply with the rule limits during any SCDP specified in the permit.

During SCDP, if any ambient monitor records an ambient air quality standard violation that can reasonably be attributed to

the facility, the source must take immediate steps to modify operating procedures to reduce the likelihood of subsequent violations occurring. This does not require an ATC modification as operating procedures are typically not part of the assumptions used to prepare the ATC. The modified operating procedures must be submitted to the APCD prior to continued testing of the facility. The APCD shall review such procedures to ensure that the steps taken will minimize future violations. This process requires the project manager to maintain a close working relationship with the Air Monitoring Section. The project manager will rely on the technical expertise of the monitoring staff, who will determine if any violation of ambient standards can be attributed to the facility.

It is the source's responsibility to make every effort possible to demonstrate and maintain compliance with ATC permit conditions during SCDP. However, because SCDP is a shakedown period, the APCD allows for enforcement flexibility during SCDP under the following circumstances:

1. Exceedance of a permitted emission limit or the failure to meet a control efficiency specified by an ATC permit condition(s). In these instances, the source is not considered in violation of their ATC permit if the APCD determines that the source is implementing all feasible procedures to maintain emission limits and/or the control efficiency in question.

At no time may the exceedance or failure result in a violation of any emission limit stipulated by APCD prohibitory and NSPS rules, APCD Hearing Board orders, cause or reasonably contribute to any exceedance of ambient air quality standards, or violate the California Health and Safety Code (H&SC).

2. Non-compliance with certain operational limits or requirements specified by ATC condition(s) provided the source is actively demonstrating progress towards achieving compliance with such limits or requirements. The project manager and respective supervisor should assess the circumstances to determine if enforcement flexibility is warranted for the specific compliance issue in question. The project manager should develop a schedule with the source operator for resolution of the problem, including deadlines, to bring the source into compliance during SCDP.

Such operational limits or requirements include:

- A. Initial shakedown and testing of a CEM system during SCDP consistent with CEM plan, CEM protocol, and Title 40 CFR Part 60.13 requirements.
- B. Implementation of Fugitive Hydrocarbon Inspection & Maintenance (I&M) programs during SCDP is met in

accordance with APCD Rule 331 and the Regulatory Compliance Division (RCD) Enforcement Policy #II.V.1 (Rule 331 Fugitive I&M Enforcement Guidelines) for the rule.

- C. Specific equipment operating times (including safety-related emergency equipment testing) provided any additional operational (time) emissions are accounted for and reported to the APCD, and included in quarterly and annual emissions reports.
- D. Fuel use and heat input limits on boilers and heater treaters provided any additional emissions generated are accounted for and reported to the APCD, and included in quarterly and annual emissions reports.
- E. Flaring event and flare emission limits provided any additional emissions are accounted for and reported to the APCD, and included in quarterly and annual emissions reports.
- F. Maintenance of Best Available Control Technology (BACT) controls such as water injection ratios on turbines and ammonia injection ratios for Selective Catalytic Reduction (SCR) units prior to source test completion.
- G. Allowable "window" for equipment operating parameters for contaminated soil cleanup ATCs provided the calculated health risk assessments (excess cancer risk) remain within APCD limit for issuance of PTO.

Flexibility can also be shown for:

- A. Format requirements of permit-required reports (i.e., monthly, quarterly, or annual).
- B. Rule 505 recurrent breakdown enforcement during SCDP.

In order to allow for enforcement flexibility during SCDP, the source must notify the APCD in writing within five working days of the date of detection of any non-compliance with Items 1 and 2 above, unless already reported in conjunction with APCD Rule 505 breakdown notification. (Note that large sources should also notify the assigned project manager or inspector by telephone within four [4] hours of the next business day after detection of any non-compliance on Items 1 and 2 in addition to the above written notification). The written notification must document the nature and cause of any such non-compliance, the procedures taken to minimize any emission impacts and to reduce the likelihood of a recurrence, and report excess operating times and/or emissions. The APCD has the authority to require this information pursuant to California Health and Safety Code (H&S) Section 42303/42304 and the specific ATC permit condition which requires the source to comply with any conditions and assumptions

used as a basis for the ATC. Any extensions to permit administrative deadlines must comply with the provisions of RCD Enforcement Policy #V.F (Granting Extensions to Administrative Deadlines).

During SCDP, any non-compliance with ATC permit limitations not cited above shall be considered grounds for APCD enforcement action against the source.

EXTENSION TO SCDP

The length of the SCDP is specified in the ATC and typically ranges from 60 to 120 days. An extension(s) may be granted if such extension is provided for by the permit and requested in writing by the source. The source must demonstrate to the APCD's satisfaction that the additional time is needed.

The request must include:

1. A description of the source tests completed to date.
2. Documentation of the specific areas where the permit holder is unable to meet APCD requirements.
3. The action that the permit holder shall take during the extension period.

The length of the extension allowed is often specified in the ATC permit. If the SCDP, plus any extension(s) specified, is still inadequate to complete all testing and compliance demonstrations required by permit conditions, the source must apply for a modified ATC which further extends the SCDP. However, the source must cease operation at the end of the SCDP (plus any authorized extensions) until the modified ATC is issued. Note: a source may elect to petition for a variance from the APCD Hearing Board to extend its SCDP. Refer to the section entitled "VARIANCES DURING SCDP" (page 7) for APCD policy.

Because of the time required to evaluate a request for extension of SCDP or for an ATC modification, the project manager must be in frequent communication with the source to ascertain the progress made to comply with SCDP requirements. In particular, ATC modifications for major projects may require public noticing with comment periods, California Environmental Quality Act (CEQA) reviews, and CEQA documents which may further extend timelines. If it becomes apparent to the project manager that the source cannot demonstrate compliance with the permit within the time frames set out in the ATC (plus any authorized extensions), the source should be informed of this fact immediately, as well as all available options. However, it is ultimately the source's responsibility to ensure that it remains in compliance at all times.

BETWEEN ATC AND PTO

Upon completion of SCDP, the source is usually required to submit a report which documents that all SCDP requirements have been met. When all reports have been submitted and approved, the project manager will inform the Engineering Division since the next phase is for the source to obtain a PTO, which is prepared by the Engineering Division.

If during SCDP the source determines, and the APCD agrees, that any aspect of the permit conditions, emission/operating limits, assumptions or analysis used in the ATC is inappropriate, the source should apply for a modified ATC permit which reflects actual operating conditions and parameters. (Not modifying the ATC in such cases would result in operation in violation of permitted parameters). The modified ATC will be processed by the APCD consistent with APCD Engineering Policy No. 6100.016.89. Note that the policy allows that, for modifications to operating assumptions only (i.e., no emissions increase), the APCD may authorize the modification by letter and incorporate it into the PTO application. Until the modified ATC is issued, however, the source must operate within the terms of the original ATC or shut down the facility equipment in question. Note: a source may elect to petition for a variance to continue operation of the facility equipment which is not in compliance. Refer to the section entitled "VARIANCES DURING SCDP" (page 7) for APCD policy.

If specifically allowed by the ATC permit, the SCDP may be extended, by written APCD approval, during the time that the PTO is being prepared. If the SCDP is continued during the PTO preparation period, the project manager must confirm that the project is in compliance with all provisions of the ATC and modifications thereof (including any emission limits). This is because the source must be able to demonstrate continued compliance with the ATC conditions prior to obtaining a PTO. The project manager will coordinate with the Engineering Division during the PTO preparation process.

Once the PTO has been issued, it shall be the source's responsibility to operate within the requirements of all APCD rules, permit conditions, and analyses used in the permit. After issuance of the PTO, APCD flexibility on enforcement is only allowed through APCD Rule 505, variances, or APCD policies and procedures. If the PTO is appealed consistent with APCD Rule 209 and the source chooses to operate its facility during the appeal phase, the source must operate within the requirements of the PTO.

VARIANCES DURING SCDP

During SCDP, it is APCD policy that variances cannot be granted to a source for ATC permit violations, for extensions to SCDP, or for prohibitory rule violations (with one exception). APCD policy allows for permitted emission limits to be exceeded during SCDP; therefore, a variance is not needed (see "Permit Violations" below). Extensions to SCDP are authorized through modifications to the ATC, with right of appeal by the source to the APCD Hearing Board (see "SCDP Extensions" below). Variances from prohibitory rules cannot be granted to a source in SCDP unless necessary to successfully complete the SCDP (see "Rule Violations" below).

SCDP is a shakedown period; the source is authorized to operate equipment only for the purposes of testing and debugging. Operation for the purposes of production or otherwise conducting business is not the purpose of SCDP.

Further guidance on enforcement of violations during SCDP is given below:

Permit Violations

During SCDP, the APCD has discretion not to pursue an enforcement action against a source for a violation of a permit condition. The APCD's discretionary role is outlined in the section entitled "ENFORCEMENT DURING SCDP" (page 2, sections 1-2) of this policy, which allows for enforcement flexibility during SCDP under certain circumstances (e.g., permit limit exceedances) as long as the source is taking all reasonable steps to comply with the permit and the SCDP plan. However, the APCD may not be flexible on enforcement action if the source does not act in good faith to correct the problem. If the source cannot demonstrate compliance (e.g., because of failed source tests) and the SCDP has expired, the source should shut down, and apply for a modified ATC.

If the violating source continues to operate as if in SCDP, the APCD shall issue a Notice Of Violation (NOV) and, in the settlement process, require the appropriate modified permits to be sought, including a schedule of compliance. If the source fails to abide by the requirements of the settlement, the APCD shall propose through abatement order procedures that the source shut down until the modified ATC is issued and the source begins a new SCDP.

Rule Violations

If SCDP testing and debugging results in a violation of an APCD prohibitory rule, the APCD shall take enforcement action (NOV) and handle any special circumstances (e.g., source cannot comply; source is awaiting replacement equipment) through the settlement process. In limited circumstances discussed below, a variance may be considered.

A variance can be supported by the APCD if the testing that results in the rule violation is a necessary part of the SCDP, and is required to obtain a PTO. In other words, the testing and debugging being carried out by the source must be necessary for successful completion of the SCDP, even though such activities may cause a violation of a prohibitory rule. A variance should not be issued to allow a source to operate without satisfying all the requirements of obtaining a PTO. APCD Rule 519 prohibits the issuance of a variance from the requirement to obtain a PTO.

For a variance from a prohibitory rule to be granted during SCDP, the APCD proposes that a finding additional to those required by the H&SC be made by the APCD Hearing Board, as follows:

Finding: The violation of the prohibitory rule caused by the testing or debugging of equipment is necessary for the successful completion of the SCDP.

This finding requires an analysis to determine if the source can successfully complete an SCDP without a variance being issued. It also addresses the statutory finding that denial of the variance would result in the "practical closing and elimination of a lawful business" (1993 H&SC 42352, page 222) If the facility cannot be tested to maximum permitted limits (including those that cause a violation of a prohibitory rule), it may become impossible to determine the appropriate limits for the PTO.

If this finding and all statutory findings can be made, then the APCD can support the application for a variance from a prohibitory rule during SCDP.

The project manager must obtain approval of his/her supervisor and division manager prior to APCD support for any variance sought by a source conducting an SCDP.

SCDP Extensions

As outlined in the section entitled "EXTENSION TO SCDP" (page 4) of this policy, extensions of SCDP that are not authorized by the ATC should be authorized through ATC modifications rather than granted administratively or by variance. An SCDP extension should not be granted by the APCD unless there are legitimate reasons to extend the SCDP for testing and debugging purposes. If the APCD denies the ATC modification for extension of the SCDP, the source may appeal this decision to the APCD Hearing Board pursuant to APCD Rule 209.

SCDP FOR SMALL SOURCES

The policy and procedure outlined above has been written primarily with an orientation to managing the SCDP for the large projects (those sources with actual emissions exceeding 25

tons/year or with permitted emissions greater than 100 tons/year). Examples would be the large oil & gas processing facilities permitted by the APCD. For the small fee or reimbursable projects with no assigned permit compliance project manager to manage the SCDP, the RCD inspector should work with the Engineering Division permitting engineer and the source test engineer to facilitate the SCDP process for the project. Please refer to the generic SCDP condition in each small source ATC for guidance in conducting the SCDP for small sources.

PRE-SCDP CHECKLIST

The following items must be verified by the APCD prior to initiation of SCDP by the permit holder:

1. Regulatory Compliance

- A. Verify compliance with:
 - 1) ATC conditions.
 - 2) All applicable APCD rules and regulations, including any not explicitly noted in the ATC Final Decision Document (FDD) and those adopted after ATC issuance.
 - 3) All applicable state and federal rules and regulations, including the California Health and Safety Code (H&SC) and federal New Source Performance Standards (NSPS).
- B. Verify that construction and installation activities are completed and that any post-construction activities and emissions occurring during SCDP will be accounted for in ATC reporting requirements (i.e., quarterly reports).
- C. Verify compliance with requirements of any applicable emission reduction/offset agreements.

2. Design Review

- A. Verify that the "as-built" Process Flow Diagrams (PFDs) and Piping and Instrumentation Drawings (P&IDs) are consistent with the plant as constructed and consistent with the design reviewed in the ATC process. Site visits by APCD staff should be used to confirm the project is being built as permitted. The verification that the project is consistent with the ATC should include (but not be limited to) a review of the following:
 - 1) Compliance with industry standards.
 - 2) Emission controls on equipment with emission potential.
 - 3) Pressure relief devices.
 - 4) Vapor recovery systems in place and functional.

- 5) Process drains and sampling connections.
 - 6) Stack parameter consistency with ATC modeling assumptions) height, diameter, location, stack angle deviation, adjacent building dimensions, Good Engineering Practice (GEP) stack height.
 - 7) Flare system.
 - 8) Continuous Emission Monitoring (CEM) and source test port locations. Verify CEM sensors are transmitting data to the CEM computer.
 - 9) Installed Best Available Control Technology (BACT), including Sections 4 and 5 of "Pre-SCDP Checklist", complies with all permit requirements.
 - 10) System safety requirements; check with APCD System Safety Reliability and Review Committee (SSRRC) representative.
- B. Perform a facility component count to determine the number of components at the facility. The component count affects offset requirements, increment fees, and odor monitoring.
 - C. For all internal combustion engines and combustion sources, confirm the equipment ratings (i.e., hp and BTU ratings) are consistent with those assumed in the ATC permit. Also confirm electric engine ratings.
 - D. Verify APCD approval of design and operation and maintenance procedures for vessel purging and vacuum truck vapor recovery systems. Verify that vacuum truck logs will reflect tank contents in loads handled immediately prior to intended use.
 - E. Ascertain all plans required by the Final Decision Plan (FDP) or ATC have been approved.

3. Emissions and Operating Limits

- A. Verify that the applicant has submitted and the APCD has reviewed and approved emission reports including:
 - 1) Current quarterly summary of onshore and offshore construction activity and emission inventory.
 - 2) Current quarterly summary of helicopter, crew boat, and supply boat operation.
 - 3) Previous six month summary and following six

month projection of helicopter, crew boat, supply boat, and tanker operation, where applicable.

- B. Verify the construction emissions quarterly reports have been submitted in a timely manner and in an acceptable format and reporting medium (hard copy, diskette, etc.) and construction emissions have been in compliance with ATC permit limitations.
- C. Verify that daily logs on construction activity are complete and maintained in an acceptable format.
- D. The formats of proposed logs and reports for operation phase emissions must be acceptable to the APCD.

4. Inspection and Maintenance Program

- A. Verify that a Fugitive Hydrocarbon I &M plan has been submitted and approved by APCD staff. The plan should be consistent with the schedule specified in the ATC FDD and APCD Rule 331.
- B. All components are to be accessible for implementing the hydrocarbon I&M program. If components are not accessible, the emission factors assumed in the ATC for implementing the inspection and maintenance program may have underestimated the project hydrocarbon emissions.
- C. Verify that data will be submitted to the APCD in an acceptable format and reporting medium.

5. Continuous Emission Monitoring

- A. Verify that an updated CEM plan consistent with the APCD CEM protocol has been submitted by the permit holder and approved by the APCD. The proposed CEM equipment and sampling locations must be adequate and consistent with permit requirements and federal regulations.
- B. Verify that all data reporting and submission requirements are in place and performing properly, including: quarterly reports; CEM data reduction and data capture; Data Acquisition System (DAS) requirements (if applicable); and notification of exceedances of permitted emission or operating limits.
- C. The CEM equipment must be inspected after installation to determine consistency with the approved CEM plan in terms of proposed equipment and sampling locations.
- D. Other continuous monitors (i.e., use, hours of operation, throughput, etc.) must be installed and

calibrated according to APCD requirements (including proper location and distance from flow obstructions)

and be in proper working order. All calibration reports must be made available to the APCD.

- E. Verify that the CEM system is equipped with an adequate alarm system to alert the APCD should the CEM system not be in proper operation.

6. Source Testing

- A. Verify that a source testing plan consistent with the APCD Source Test Procedures Manual and a test schedule has been submitted by the permit holder and approved by the APCD. Sampling locations must be adequate and consistent with permit requirements. Source testing ports must be properly located.
- B. All source testing data reporting submission requirements are to be in place and performing properly. In particular, verify whether a system is in place for notification of exceedances of permitted emission or operating limits.

7. Ambient Monitoring

- A. In coordination with the Air Monitoring Section, ascertain that the permit requirements with respect to meteorological and air quality monitoring data have been fulfilled. These requirements include, but are not limited to, the submission of monitoring and quality assurance plans, the installation and operation of monitoring sites, the submission and telemetry of data, and the revision of data where requested by the APCD.
- B. All monitoring stations must be in place and operating properly.
- C. Verify that ambient air monitoring and odor monitoring data are telemetered to the APCD and that the telemetry system is compatible with the APCD DAS. Odor monitoring data will be telemetered on an as-polled basis.

8. Increment Consumption

- A. Increment fees for the first year must be paid prior to start of SCDP.
- B. If the applicant chooses during initial ATC permit processing to have increment fees based on ambient monitoring (per APCD Rule 205C.1.a.4), then verify

whether the monitoring sites are sufficient in number, properly sited, and that the appropriate parameters are monitored.

9. Offsets

- A. All offset agreements must be executed and the Emission Reduction Credits determination complete, including any required permit modifications for offset providers.
- B. The ATC FDD offset requirements must be fulfilled, including source testing and reporting.
- C. Testing of offset sources must be observed by the APCD. All source testing requirements identified in "Source Testing" (section 6 of this document) must be met. Initial verification of offset sources (i.e., emission controls are in place and operational) should take place prior to ATC issuance.
- D. Verify whether the permit holder has submitted, and the APCD has approved, the most current quarterly reports on fuel use, operating hours, etc. for verification of offset source credit.

10. Public Nuisance and Opacity

- A. The permit holder must identify a contact with a 24 hour phone number to respond to nuisance and odor complaints.
- B. If required, coordinate with the Air Monitoring Section to verify that an odor monitoring plan has been submitted by the permit holder and approved by the APCD. The proposed odor monitoring methods, equipment and sampling locations must be adequate and consistent with ATC permit requirements. The odor monitoring stations, including telemetry if required, must be installed and operational.

11. Episode Plans

Verify that the required episode plan has been submitted by the permit holder and approved by the APCD. The plans are to be consistent with the schedule specified in the ATC FDD.

12. Lead Agency Permit Consistency

Verify there are no inconsistencies between APCD and lead agency permits. Coordinate with the lead agency to resolve any identified inconsistencies.

13. AQAP Consistency

14. PTO Preparation

15. Management/Administration

- A. Prepare a schedule of due dates for all deliverables required of the permit holder. All deliverables must be received according to the schedule.
- B. Verify that on-site inspections have been performed according to permit requirements.
- C. In coordination with the Administration Division, insure that a sufficient deposit is on hand at all times to cover projected costs for the ensuing three months.
- D. Verify that a reimbursement agreement has been ratified between the applicant and the APCD.
- E. Verify that the applicant has signed an Memorandum Of Agreement agreeing to remit increment fees to the APCD during the first ten years of project operation.
- F. Verify that the applicant has committed to adequately fund all special studies specified in the ATC permit requirements.

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