

AIR POLLUTION CONTROL DISTRICT
REGULATORY COMPLIANCE DIVISION

POLICIES AND PROCEDURES

Policy No. V.H
Supersedes Date 06-11-90
Date April 25, 1991

Draft
Final X
Pages 3

Topic: Offset Verification

Distribution: All Policy Holders

This policy and procedure document provides guidance on the following topics: (1) verification of the amount of offsets actually provided by an offset source, (2) verification of the control efficiency achieved by the offset source, (3) updates to the Offset Tracking System and (4) enforcement action.

If an offset source is used by more than one project, one of the managers of those projects should assume the responsibility for verifying the amount of offsets provided and the control efficiency achieved.

Verification of Offsets Provided

The amount of offsets provided can be calculated from the data in required annual source test and quarterly reports which are to be sent to the project manager. Examples of data are fuel use and composition, hours of operation, source tested emission factors, I&M activities and number of vessel trips. The project manager may have the report or portions thereof reviewed by staff with specific areas of expertise - e.g., source testing. He/she should also arrange with the Oil and Gas Team to conduct inspections of control equipment and on-site records as a secondary method of verification. While the calculation methodology will depend on the offset type and any project-specific requirements, the following general formulae can be used:

A. Combustion Sources

Quarterly offsets provided = Uncontrolled emissions - Controlled emissions

Where

Uncontrolled emissions = (fuel specific emission factor ¹ for the uncontrolled source) X (average quarterly baseline fuel use over three years)

or

¹ The fuel specific emission factor is derived from source test results or other District-approved methodology.

(fuel specific modal emission factor for the marine vessel) X (modal fuel use per trip) X (baseline trips per quarter)

Controlled emissions = (fuel specific emission factor for the controlled source) X (average baseline quarterly fuel use over three years)

or

(fuel specific modal emission factor, including any controls, for the marine vessel) X (modal fuel use per trip) X (reduced trips per quarter)

B. Inspection/Maintenance Sources

Quarterly offsets provided = (1- offset credit reduction) X (original offset credit)

Where

Original offset credit = amount of quarterly emission reductions originally granted based on a source specific District approved I&M Program using District approved calculation methodology

Offset credit = $\frac{\text{\# of components not in compliance}}{3\% \text{ of the total components in the program}}$ reduction

Number of components not in compliance =

In a calendar quarter, the number of late first repair attempts + number of late second repair attempts + number of components leaking at the end of the quarter + number of components not monitored + number of critical components not repaired

All offset credit granted for an I&M program will be not in place if more than 3% of the total components in the I&M program are not in compliance.

This approach is based on the API/Rockwell study and review of this study by Tecolote. A typical snapshot of any one facility would reveal that 3% to 4% of all components to be leaking at greater than 10,000 ppm when measured by an OVA. Over 99% of the emissions by weight came from these leaking components. Therefore, it is reasonable and conservative to make the reductions in offset credit proportional to the reported number of components not in compliance divided by the number of leakers estimated to be responsible for all the emissions (3% of all the components in the I&M program) from the facility.

It is the project manager's responsibility to (1) compile the results of all report reviews and inspections and (2) calculate the offsets provided by each source.

Verification of Control Efficiency

An offset source's Permit to Operate may specify a minimum control efficiency which has to be achieved. This is particularly true for internal combustion engines with catalytic converters. The control efficiency can be calculated from the following formula:

$$\text{Control efficiency} = \left\{ 1 - \frac{\text{controlled emission factor}}{\text{uncontrolled emission factor}} \right\} \times 100$$

Generally, the controlled and uncontrolled emission factors are derived from source testing, with the controlled value being updated annually. The project manager should recalculate the control efficiency when new values of one or both factors are available.

Updates to the Offset Tracking System

The Offset Tracking System (OTS) is a computerized data base containing information on offset users and providers. For each offset user, the system lists the offset sources and the quantity provided by calendar quarter. Conversely, for an offset provider, there is a list of the projects using that offset source and the quantity provided by calendar quarter. When updated on a quarterly basis, the OTS will allow project managers to quickly determine whether there are sufficient offsets to satisfy the project liability.

After the project manager has calculated the offsets provided, he/she shall forward that information to the OTS Coordinator for entry into the computer. The OTS Coordinator will enter the information in accordance with the guidelines stipulated in Policy and Procedure document _____ (to be assigned).

Enforcement Action

For sources with inspection/maintenance programs providing ROC offsets, a Notice of Violation will be issued to the offset provider for any instance of non-compliance with the approved I&M plan. If greater than 3% of the total components in the I&M program are not in compliance or the offset provider obtains a variance that would decrease the amount of emissions controlled, the offsets granted will be considered "lost" and a NOV will be issued to the offset user if the project does not have sufficient offsets.

For all other offset providers, if the control efficiency specified on the PTO has not been met or exceeded, a NOV will be issued to the provider for violating the applicable permit condition. Additionally, if the offset provider obtains a variance that would decrease the amount of emissions controlled or does not comply with permit condition(s), the offsets will be considered "lost" and a NOV will be issued to the user if the project does not have sufficient offsets.

