

### Thomas J. Christofk, Air Pollution Control Officer

# **Overview of Non-Compliance Event Reporting Requirements**

District reporting and compliance requirements for "Non-Compliance" events are reviewed in this document. Non-compliance events include:

- Excess emissions (emissions exceedences), <sup>1</sup>
- Upset / Breakdowns (Malfunctions),
- Non-compliance with permit requirements that are not associated with excess emissions,
- CEMS and CMS failures, or
- Startup and shutdown (S&S).

### **Non-Compliance Event Reporting**

Reporting requirements for non-compliance events include 2:

### Initial reporting

Emission Exceedences – The District requires that all sources report all events associated with excess emissions or CEMS failures on the same reporting schedule as "upset / breakdown" requirements discussed below. See California Health and Safety Code §42303 ("Requests for Information") and District Rule 501 Section 407 which allows the District to request, at any time, information which will disclose the quantity or degree of air contaminants which are discharged; California HSC §42706 ("Report of Violations") which requires that any violation of any emission standard determined using a CEMS shall be reported to the District within 96 hours after such occurrence; and District Rule 501 Section 304.2(b) which similarly

<sup>&</sup>lt;sup>1</sup> "Excess emissions" (or "emissions exceedance") occur when actual emissions levels (either directly measured or indicated by surrogate operating parameters) exceed allowable limits in the operating permit conditions or any other applicable rules.

<sup>&</sup>lt;sup>2</sup> Only general reporting requirements, applicable to all types of facilities, are discussed here. Other specific rules, regulations, and permit conditions may contain additional reporting requirements.

requires that excess emissions be reported to the District within 96 hours.

- -- Upset / Breakdown For all sources, all non-compliance events (with or without associated excess emissions) or CEMS failures that are a result of an "upset / breakdown" <sup>3</sup> event must be reported to the District within 2 hours after detection during normal business hours. See District Rule 404 Section (B), District Rule 404 Section (E). This initial notification must include the time the event took place, the equipment involved, and the cause of the event. Within 7 days following the correction of the upset / breakdown event, the source must provide to the District a report that includes:
  - Cause of the event, with sufficient detail to enable the District to determine if the event was a legitimate upset / breakdown event.
  - Corrective measures taken to prevent future breakdowns.
  - Quantity of excess emissions from the event.
- Title V Deviation Reporting Title V facilities must "promptly" report to the District <u>all</u> deviations <sup>4</sup> from permit requirements, including those attributable to upset / breakdown (malfunction) conditions, as well as those during startup or shutdown operations. The report must include the cause of the deviation, and any preventative or corrective action taken, similar to that discussed above for upset / breakdown events. See District Rule 507 Sections 402.2(g)(1) and (3). The District considers prompt reporting to be consistent with that required under upset / breakdowns, discussed above. The District requests that deviations be reported using identical forms and reporting procedures used for upset / breakdowns discussed previously.
- -- <u>Title V Emergency Reporting</u> For emergency <sup>5</sup> events, Title V facilities must submit a report to the District within 2 working days that

<sup>&</sup>lt;sup>3</sup> "<u>Upset/Breakdowns</u>" are an unforeseeable failure or malfunction of the process or air pollution control equipment which cause a violation of emissions limits or restriction required by District or State law; or a failure of a continuous emissions monitoring system (CEMS) or continuous monitoring system (CMS).

<sup>&</sup>lt;sup>4</sup> <u>Deviations</u> from permit conditions occur when any permit condition is not met, including conditions that establish emission limitations, emission standards, control equipment requirements, work practices, and parameter ranges, and those designed to assure compliance with such requirements, such as monitoring, recordkeeping, and reporting requirements. A deviation is not necessarily a violation. Violations will be determined by the District.

<sup>&</sup>lt;sup>5</sup> Emergencies are any situation arising from a sudden and reasonably unforeseeable event beyond the control of a permittee (e.g., an act of God). Emergencies do not include non-compliance as a result of improperly designed equipment, lack of preventative maintenance, careless or improper operation, or operator error.

describes the emergency and any corrective actions taken. Within 2 weeks a report must be submitted which demonstrates that an emergency occurred, the cause of the emergency, steps taken to minimize emissions during the emergency, and that the facility was being properly operated at the time of the emergency. See PCAPCD Rule 507 Section 402.2(I).

- -- Not Title V, No Emissions Exceedance, No Upset / Breakdown For non-Title V facilities, for non-compliance events of permit conditions which are not associated with excess emissions or are not associated with an upset / breakdown event, reporting to the District is not required. However, it is suggested that they be self-disclosed to the District to minimize potential enforcement consequences.
- Excess Emissions and Monitoring System Performance Report Facilities using CEMS, COMS, or CMS must submit on a quarterly basis an "Excess Emissions and Monitoring System Performance Report," which includes: (1) monitoring system manufacturer, design, and operating information; (2) monitoring system changes and downtime, and process downtime; and (3) time, duration, magnitude, and nature of the cause and corrective actions for all "excess emissions" events. See 40 CFR §60.7(c) and (d).
- Title V facilities have the additional reporting requirements:
  - -- Semi-Annual Deviation Report On a semi-annual basis, as part of a "Semi-Annual Deviation Report", detailed information associated with each separate deviation event must be provided to the District – including the time of occurrence, duration, excess emissions, cause, and corrective actions associated with all deviations. See District Rule 507 Section 402.2(g)(2).
  - -- Compliance Certification Report On an annual basis, as part of the "Compliance Certification Report", summary information on the compliance status over the year is provided for each separate permit condition including a description of the permit condition requirement; the method(s) used to determine compliance with the condition; number, duration, and excess emissions associated with deviations from the condition; and causes and corrective actions associated with the deviations. See District Rule 507 Section 402.2(n).

## Malfunctions (Upset / Breakdowns)

Non-compliance events that take place during <u>legitimate</u> "malfunction" <sup>6</sup> (or "upset / breakdown") events may be excused. It is the burden of the source to

<sup>&</sup>lt;sup>6</sup> "<u>Malfunctions</u>" are sudden, infrequent, and not reasonably preventable failures of equipment to operate in a normal manner. Failures caused by poor maintenance or careless operations are not malfunctions.

demonstrate to the District that a malfunction event has occurred. The District considers the following factors to determine if a legitimate malfunction occurred:

- Equipment must be maintained and operated in a manner consistent with minimizing emissions.
- -- Repairs must be made rapidly, using off-shift labor or overtime if necessary.
- -- The amount and duration of emissions must be minimized.
- -- The impact on ambient air quality must be minimized.
- -- The event must not be part of a recurring pattern that is indicative of inadequate design, operation, or maintenance.
- -- Emissions are caused by a sudden, unavoidable breakdown of technology, beyond the control of the operator.
- -- Emissions (a) did not stem from an event that could have been foreseen and avoided or planned for; and (b) could not have been avoided by better operation and maintenance practices.
- -- All emissions monitoring systems are kept in operation if possible.
- -- Actions in response to excess emissions are documented in operating logs or other relevant evidence.
- -- The operator must promptly notify the regulatory authority.

## **Startup and Shutdown**

Startup <sup>7</sup> and shutdown <sup>8</sup> (S&S) periods are generally considered as part of normal operations. Thus, excess emissions during S&S periods are excused only if: (1) a malfunction occurred during the S&S period; or (2) if the source demonstrates that the excess emissions during S&S could not have been prevented through careful planning and design, specifically showing that emission control methods are not appropriate or effective during S&S periods. In the first instance, a detailed explanation of the malfunction that occurred during the S&S period must be provided to the District. In the second instance, the

<sup>&</sup>lt;sup>7</sup> "<u>Startup</u>", for example for boilers, is the period of time a unit is heated from cold or ambient temperature to its normal operating temperature as specified by the manufacturer. See District Rule 232 Section 213.

<sup>&</sup>lt;sup>8</sup> "<u>Shutdown</u>", for example for boilers, is the period of time a unit is cooled from its normal operating temperature to cold or ambient temperature. See District Rule 232 Section 212.

source must provide information to the District that clearly demonstrates that the excess emissions could not have been prevented during S&S.

For example, alternative limits might be appropriate as a result of: (1) very low  $CO_2$  levels during initial startup and final shutdown periods; or (2) ineffectiveness of certain  $NO_x$  control methods due to equipment operating temperatures that are too low during initial startup. It is important that alternative limits during S&S be requested if appropriate, and included in the permit to operate.

### **Opacity Exemptions**

For opacity, excess emissions may be excused for certain source types during legitimate periods of S&S and control device malfunction. Under District and State regulations, excess emissions of opacity from sources with burners fired by forestry or agricultural residues are excused during S&S and malfunctions of control equipment, where exemptions are limited to a time period aggregating 30 minutes in any 24-hour period. This exemption does not apply when the source fails to operate and maintain in good working order any emissions control equipment. See District Rule 203 Section A.12 and California Health and Safety Code §41704. The District requests that reporting similar to that described above for upset / breakdowns be prepared and submitted to the District that documents that opacity emissions exceedances were less than 30 minutes in any 24 hour period, demonstrates that control equipment has been properly operated and maintained, and discusses the circumstances of the startup or shutdown and/or the cause of the control equipment malfunction and corrective actions to prevent future malfunctions.

Under Federal regulations for New Source Performance Standards, opacity requirements are not applicable during S&S periods. See 40 CFR §60.11.

## Performance Testing

Excess emissions of pollutants which are measured intermittently during performance testing using manual source sampling methods are excused if the performance test included (accidentally) periods with S&S or malfunctions. See 40 CFR §60.8. Re-testing is required to satisfy requirements for the demonstration that all emissions meet the specified limitations.