



BREAKDOWN GUIDELINES

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ENFORCEMENT DIVISION

SUBJECT: BREAKDOWN GUIDELINES

The Air Pollution Control Officer (APCO) may refrain from enforcing the provisions of District regulations for excesses of emissions resulting from the breakdown of air pollution abatement equipment or operating equipment provided such emissions do not interfere with the attainment or maintenance of any national or California ambient air quality standard and further provided that the persons responsible for such emissions comply with the administrative requirements of Section 1-431 and 432.

(Regulation 1, Section 112)

A breakdown is any unforeseeable failure or malfunction of any air pollution control equipment or operating equipment which causes a violation of any emission standard or limitation prescribed by District, California or federal rules, regulations or laws.

(Regulation 1, Section 208)

1. BREAKDOWN CRITERIA

A. Applicability

All source and control equipment is eligible. Process "upsets" are not eligible for breakdown relief.

In some cases emissions may not be **quantifiable**, but a violation may still exist. All resources shall be utilized to document excessive emissions.

Flares:

Breakdown relief will not be granted for excessive smoke from a flare due to a process unit malfunction; however, relief may be granted provided there is a malfunction in the flare itself, causing the excessive smoke.

Landfills:

If a landfill experiences an unanticipated shutdown, such as an extinguished pilot light, the operator may request breakdown relief, utilize inspection and maintenance downtime hours, or apply for a variance, depending on how long the system is down. (Refer to Regulation 8-34

Policies and Procedures for additional information.)

B. Breakdown Notification (Episode Reporting Requirements)

A person seeking relief pursuant to Section 1-112 shall notify the APCO of the breakdown condition immediately, with due regard for public safety, including the hazard of fire and explosion. Such notification shall include the time, specific location, equipment involved and to the extent possible the cause of the breakdown.

(Regulation 1, Section 431)

Breakdown requests are considered "episodes" for purposes of District reporting procedures and they shall contain the following information:

- Company name and District-assigned plant number.
- Equipment description and District-assigned source number.
- Type of Emission: violation of District standard; e.g., visible emissions, VOC, etc.
- Problem: what caused the emission/violation.
- Name of reporting person: the representative that reported the breakdown.
- Start date, clear date: the date and time the excess started, the date and time the excess ceased.

The following options are available to industry for reporting breakdown episodes:

- Submission via facsimile (fax), at all hours, a completed "Episode Report Form" (Exhibit I) at (415) 928-0338.
- Reporting via telephone Monday through Friday from 8:30 a.m. to 5:00 p.m.: at telephone (415) 749-4979.
- Reporting via telephone message machine, breakdown episodes ONLY, after business hours or on weekends at (415) 749-4666.

District staff receiving a breakdown episode report will generate a breakdown episode ID# and will dispatch the information to the area Inspector as soon as possible.

When a breakdown episode is reported during other than normal working hours, an ID# is assigned the following working day. If the company does not receive confirmation of the breakdown report by having an ID# assigned to it, it is the company's responsibility to contact the District.

The District will not accept a breakdown request unless there are excessive emissions. If emission data is not available, the office staff will take the request as a message. In the case of visible emissions, where no monitor is present, an indication that the plume appears excessive will be acceptable. A breakdown request will not be taken if more than 24 hours have elapsed since the onset of excess emissions.

Subsequent attempts by a facility to cancel or withdraw a breakdown request will be denied unless it has inadvertently been reported as a duplicate of an existing request.

If a company needs to report both a breakdown and emission excess (es) for the same incident, they must obtain separate episode ID#s. While the same "Episode Report Form" may be used, all pertinent information must be checked, e.g., both "B" and "E" information areas clearly filled. A breakdown episode number **cannot** also be used as a monitor excess number. See the CEM, GLM and Mobile Monitor Guidelines of this Policies and Procedures Manual.

C. Written Report Requirements

Within 30 days of the occurrence of a breakdown, the person responsible shall submit a written report to the APCO. The following information shall be included:

1. Sufficient information to enable the APCO to determine whether or not a breakdown occurred and the cause of the breakdown.
 - a. Total excess emissions for the entire breakdown period, including calculations and assumptions.
 - b. All operating parameters used to establish excess emissions (e.g., unit throughput, raw material usage, temperature, pressure, exhaust flow rate, etc.).
2. A summary of the corrective action taken following the breakdown, including a description of steps taken to minimize excess emissions and its effectiveness in reducing emissions.
3. Present status of the breakdown.
4. A summary of actions taken to insure that such breakdowns will not occur in the future.

(Regulation 1, Section 432).

2. INVESTIGATION

A. Inspection Responsibilities

Pursuant to Regulation 1-431 the APCO shall promptly investigate to determine whether the occurrence reported constitutes a breakdown. The determination may be made based upon information developed by the investigation, or upon the basis of such information in addition to information reported in the written report made pursuant to Section 1-432. If the APCO determines that the occurrence does not constitute a breakdown, appropriate enforcement action may be taken.

(Regulation 1, Section 433)

The investigation should include the following:

- Document any ongoing violations by taking a plume evaluation reading, TLV or OVA meter reading, verifying a source of odor, obtaining charts or other observations.
- Determine through interview the following information:
 1. When and how did the operator become aware of emissions?
 2. Prior to breakdown was the air pollution control or operating equipment properly maintained?
 3. Were repairs made in an expeditious manner? Was overtime or off-shift labor utilized?
 4. Were emissions minimized as to amount and/or duration, and how?
 5. Were emissions part of a recurring pattern indicative of inadequate design, operation or maintenance?
 6. If the equipment is an abatement device, what sources are controlled by it, and what sources were in operation at the time of the breakdown.

When it is not possible to determine excessive emissions, collect sufficient data for Technical evaluation.

Answer ongoing citizen complaints as soon as possible. For large events with significant impact on the community, contact a Supervisor to divide tasks if necessary.

In those cases where emissions have ceased or could not be confirmed,

contact with plant staff will still be required and an inspection report must be written.

B. Technical Support Services and Enforcement Responsibilities

For breakdowns resulting in major emissions and/or impact on the community, Technical Support Services and Incident Response staff will supplement the investigation, as follows:

1. Coordinate efforts with the assigned Inspector to document and quantify excess emissions from the breakdown.
2. If possible, accompany Inspector on initial investigation of the breakdown.
3. Confer with Inspector(s) and supervising Inspector regarding the breakdown request.

For other, non-major breakdowns, Technical Support Services shall provide technical support only as requested. If this technical support is necessary in order to evaluate or determine the breakdown recommendation, the Inspector will consult with appropriate staff and provide all information or copies that are necessary prior to reaching a conclusion regarding relief.

If any related monitor episode excess is reported, pursuant to the CEM, GLM and Mobile Monitor Guidelines document of this Manual, the excess will be submitted to Technical Services Division evaluation, via the Air Quality Technician processing episodes. Any excesses which are confirmed as violations will be cited only if relief is denied pursuant to these guidelines.

3. EMERGENCY VARIANCE

If excessive emissions are anticipated to continue beyond 24 hours or a production run, the plant has the option to apply for an Emergency Variance (EV) or a variance.

If a variance is already existing, but the excess emissions violate a condition of the variance, follow the procedures in this document unless an additional EV for the particular circumstances is sought.

Refer to the Hearing Board Activities Guidelines of this Policies and Procedures Manual for more information.

4. NOTICE OF VIOLATION CRITERIA

Notices of Violation (NOVs) associated with breakdowns will be prepared by Inspectors and issued in the field.

A. Breakdown Denial

The APCO will deny relief if any of the following conditions exist:

1. The breakdown is the result of intent, negligence or disregard of air pollution control regulations.
2. The breakdown is the result of improper maintenance.
3. The breakdown creates a public nuisance (see Section B. Public Nuisance for a related emission violation).
4. The breakdown is caused by an excessively recurrent breakdown of the same equipment.
5. The breakdown occurs and the emissions interfere with attainment or maintenance of any National or California air quality standard.

If the breakdown is recommended for denial, an NOV will be issued citing the regulation or permit condition violated. The basis for denial of relief will be clearly discussed when issuing the NOV and will be identified in the report documenting the NOV, including the Supervisor's recommendation on Page 2 of the Episode Investigation Form (Page 2 of Exhibit II).

B. Public Nuisance

When a public nuisance and emission violation occur at the same time, the following will apply:

Breakdown relief may be granted for the emission standard violated provided all the requirements in Regulation 1 are met; however, **breakdown relief will not be granted for any violation of Regulation 1, Section 301, or Health & Safety Code 41700, Public Nuisance (Section 41700 is cited only for sources otherwise excluded from District rules and regulations).**

C. Discretionary Enforcement

Even if none of the conditions in (A) apply, an NOV may still be issued if the company does not:

1. Demonstrate appropriate corrective action, or
2. Shut down equipment before the next production run or 24 hours, whichever comes first.

5. ADMINISTRATIVE REQUIREMENTS

The following reporting requirement failures will result in violation of the emission standard or limitation, where an excess is confirmed:

- a. Breakdowns not reported in accordance with Section 1-431.
- b. Written report not provided as required by Section 1-432.

6. REPORT OF INVESTIGATION

The Inspector's breakdown report will follow the same format as the NOV report (refer to Notice of Violation Guidelines).

If the documentation includes any records, clearly identify what the records are and how they relate to the excess.

All breakdown reports recommending relief will be submitted to the Supervisor within 15 days after receipt of a breakdown request. The report will be forwarded to the Compliance and Enforcement Division Source file via the Air Quality Technician processing episodes.

All breakdown reports recommending denial require concurrence of the area Supervising Inspector (see **(7) Report Forms**, below) before an NOV is prepared and issued by the Inspector. The report will be the basis for the NOV documentation and should be submitted in the normal manner for NOV's as soon as practical after completing the investigation.

A report will be submitted even when no excessive emissions have been recorded.

A recommendation for granting or denying the breakdown should follow the guidelines on Investigation, (Section 2A) Breakdown Denial, (Section 4A) and Public Nuisance (Section 4B) of this document. Reports on breakdowns associated with a District approved monitor excess episode should follow the CEM, GLM and Mobile Monitor Guidelines.

The Inspector should indicate in the report whether Technical Support Services was involved.

7. REPORT FORMS

The report of the breakdown investigation will be written on the "Breakdown Episode Investigation Form".

The information required on the form will be obtained from the plant representative at the time of the episode report receipt, and dispatched to the Inspector. When contact is made with the plant representative, verify the information. Any differences in information reported should be noted in the body of the report.

A complete report consists of the following:

- Breakdown Episode Investigation Form (see Exhibit II)
- Violation documentation
- Any Associated monitor episode excesses (reported pursuant to the CEM, GLM and Mobile Monitor Guidelines document of this Manual)
- Company written report (normally received via District office)

If no company written report has been received within 30 days following the request, the Inspector should recommend denial, where a violation has been documented. However, the Inspector may optionally contact the company, as a reminder prior to expiration of the 30-day period, if the report has not been received. If a report is received in the field, it must be attached as part of the complete report.

Even though Inspectors will issue NOVs in the field, if breakdown denial is recommended, the Supervisor must still approve all recommendations prior to *any* action. The Episode Investigation form provides uniformity in guiding both Inspectors and Supervisors to select one, **only**, of the following four choices for a breakdown recommendation:

- ***Relief (and all administrative provisions met)*** - This choice requires that in addition to the Inspector's investigation and conclusions, the required written report has been received and reviewed. This category can include monitor excess episodes even before the Technical Division evaluation is completed. If, however, the written report is not received within the required 30 days, then denial must be recommended, unless significant circumstances justify otherwise.

- **Variance Relief Applies** - This would apply to either an already-existing variance or a newly-approved EV.
- **No Further Action Applies (non-monitor only)** - Inspector is unable to verify that a violation has occurred (only where no emission monitor evaluation is involved).
- **Denial** - Two subcategories are listed:
 - “Pending monitor evaluation” requires that the basis for an NOV is dependent upon a Technical Division evaluation of a monitor chart.
 - “Complete NOV Data” requires the Inspector to provide the information to be cited (e.g., regulation, rule, specific permit condition), and attach the documentation necessary to support the citation. Upon approval by the Supervisor, this will be the basis for the NOV prepared by the Inspector.

Supervisors should review the Inspector’s recommendation and if they concur, sign at the bottom of the form. If the recommendation is for denial, Supervisors must also check the applicable denial code(s), located immediately above the “Comments” portion of the Breakdown box. The basis for denial must be selected from one or more of the following categories:

- Nuisance (See Section 5B)
- Recurrent (See Section 2A5)
- Intent or Negligence
- Maintenance (See Section 2A1,2)
- Administrative (See Section 1B,C)
- Definition (See Regulation 1, Section 208)

For denial recommendations which are approved by the area Supervisor, the report will be returned to the Inspector for preparation and issuance of an NOV in the field. Inspectors will call in the Episode ID# at the same time the NOV# is called into to dispatch and RTOs will enter the NOV# into the episode data program.

For relief recommendations, the report will be forwarded to the Air Quality Technician for ID# update in the episode data program and subsequent forwarding to the Division Source file.

EPISODE REPORT FORM

(see instructions on reverse)

The District is available to receive your episode report
 M-F 8:30 am - 5:00 pm telephone **(415) 749-4979**. After hours for breakdowns only telephone **(415) 749-4666**
 FAX **(415) 928-0338**

TYPE (check **one** box; report only one type on a form; use a separate form for each Episode)

Breakdown Excess Inoperative Monitor PRV

SITE

COMPANY _____	PLANT# _____	or GDF# _____
LOCATION _____		
CITY _____		

EQUIPMENT

SOURCE DESCRIPTION _____	S# _____
ABATEMENT DEVICE _____	A# _____
EMISSION POINT (STACK) _____	P# _____

OCCURRENCE

START DATE _____	TIME _____ :	REPORTED DATE _____	TIME _____ :	<small>for District use only</small>
CLEAR DATE _____	TIME _____ :	REPORTED BY _____		
RECEIVED BY _____	<small>for District use only</small>	PHONE () _____	EXT _____	
PROBLEM _____				

BREAKDOWN (if box **B** is checked)

RELATED EXCESS EMISSIONS ¹ ? <input type="checkbox"/>	MONITOR EXCESS <input type="checkbox"/>	OTHER EXCESS _____ <input type="checkbox"/>
EMISSION DESCRIPTION _____		

EXCESS EMISSION OR INOPERATIVE MONITOR (if box **E**, or **I** box is checked)

MONITOR DESCRIPTION _____	
TYPE: <input type="checkbox"/> CEM ² <input type="checkbox"/> GLM ³ <input type="checkbox"/> FUEL GAS ⁴ <input type="checkbox"/> PARAMETRIC ⁵	
PARAMETER: <input type="checkbox"/> NO _x <input type="checkbox"/> SO ₂ <input type="checkbox"/> CO <input type="checkbox"/> H ₂ S <input type="checkbox"/> TRS <input type="checkbox"/> NH ₃ <input type="checkbox"/> O ₂ <input type="checkbox"/> CO ₂ <input type="checkbox"/> H ₂ O <input type="checkbox"/> OPACITY/LTA <input type="checkbox"/> LEAD	
<input type="checkbox"/> GAUGE PRESSURE <input type="checkbox"/> HYDROCARBON BREAKTHROUGH (VOC) <input type="checkbox"/> TEMP <input type="checkbox"/> pH	
<input type="checkbox"/> WIND SPEED <input type="checkbox"/> WIND DIRECTION <input type="checkbox"/> FLOW <input type="checkbox"/> STEAM	
EXCESS (if box E is checked)	
INDICATED EXCESS _____	<input type="checkbox"/> ppm vol <input type="checkbox"/> ppb vol <input type="checkbox"/> min/hr > 20% <input type="checkbox"/> inches H ₂ O <input type="checkbox"/> psig <input type="checkbox"/> mmHg <input type="checkbox"/> %voc
ALLOWABLE LIMIT _____ units should be the same as the District Regulation Standard or Permit Condition	
AVERAGING TIME ⁶ _____ MINUTES	RELATED BREAKDOWN ID# _____ <small>for District use only</small>

1. If there are no excess emissions, a Breakdown Report will **NOT** be accepted
 2 For 'CEM' any single PARAMETER, except H2S and LEAD, applies
 3 For 'GLM' only the SO2, H2S, or LEAD PARAMETER applies
 4 For 'FUEL GAS' only the H2S PARAMETER applies
 5 Applies to gauge pressure, hydrocarbon breakthrough (VOC), Temperature, pH and flow
 6 Averaging time applies to the allowable limit

INSTRUCTIONS FOR COMPLETING THE EPISODE REPORT FORM

M-F 8:30 am - 5:00 pm telephone (415) 749-4979; after hours for breakdowns only telephone (415) 749-4666
Fax # (415) 928-0338

1 TYPE

Check one box; report only one type on a form; use a separate form for each Breakdown, Excess, Inoperative Monitor or PRV (Pressure Relief Valve) venting.

2 SITE

Enter company name, address and District Plant number or GDF number. For companies with multiple plants, be certain that the Plant number is correct for the location.

3 EQUIPMENT

Enter:

- Source Description and source number (S#)
- Abatement Device Description and abatement device number (A#)
- Emission Point number (P#), if available.

4 OCCURRENCE

Enter:

- Start Date, Clear Date, the date and time the Episode started, the date and time the Episode ceased.
- the problem which caused the Breakdown, Excess, Inoperative monitor or PRV venting.
- Reporter's Name, Phone Number and Extension.
- Do Not Enter - Reported Date and Time. District will enter based on time received.

5 BREAKDOWN

Check the appropriate box indicating either a Monitor Excess (emission or parametric) or Other Excess not associated with any monitor (e.g. Visible emission evaluation). Describe the excessive emission.

6 EXCESS EMISSION OR INOPERATIVE MONITOR

Describe the monitor where the excess occurred or the monitor that malfunctioned.

Enter:

- the Type of monitor that malfunctioned or recorded the excess.
- the Parameter which the monitor measures.

For Excesses (**also**) enter:

- the Indicated Excess in ppm vol, ppb vol or min/hr > 20%. Opacity. Temperature is expressed as degrees Fahrenheit. Gauge pressure is expressed as mmHg, psig or inches H₂O. Hydrocarbon Breakthrough is expressed as %VOC. pH is expressed as a number. For flow use the units specified in the District Regulation Standard or Permit Condition.
- the Allowable Limit (e.g., Regulation Standard, Permit Condition, National or State Air Quality Standard).
- the Averaging Time.
- **the Breakdown ID number associated with the Excess, only if previously assigned by the District.**

Upon receiving the episode report form, the District will record the information and assign an ID number and acknowledge the Episode report by letter.

NOTE: Breakdowns reported during other than normal working hours will be assigned an ID number the following working day. If the company does not receive an ID number it is the company's responsibility to contact the District to obtain the ID number. The company must submit a written report to the District within 30 days of the occurrence. It is essential that the report include detailed emission calculations for breakdowns and specific information as required in Regulation 1, Section 432. Send breakdown letters to: BAAQMD, 939 Ellis Street, San Francisco, CA 94109, Attn: Breakdown, Enforcement Division.

Exhibit I

BREAKDOWN ID#

EPISODE ID#

BREAKDOWN EPISODE INVESTIGATION FORM

	<i>Initials</i>	<i>Date</i>
SUPV		
ENF		
TECH		
SUPV		

COMPLETE THIS BOX FOR ALL EPISODES

COMPANY:						SITE #
REPORTED BY:			TITLE:			
START date:	Time:	hr	REPORTED date:	Time:	hr	
CLEAR date:	Time:	hr	REPORTED date:	Time:	hr	

BREAKDOWN

ABATEMENT DEVICE:								
SOURCE DESCRIPTION:		S#						
PROBLEM:								
COMPANY WRITTEN REPORT due:	RECEIVED WITHIN 30 DAYS: <input type="checkbox"/> YES <input type="checkbox"/> NO							
INSPECTOR REVIEWED REPORT ON:								
<input type="checkbox"/> RELIEF <input type="checkbox"/> VARIANCE IN EFFECT – DOCKET # <input type="checkbox"/> NOT APPLICABLE – No violation documented (non-monitor only) <input type="checkbox"/> DENIAL – Inspector will either ♦ ATTACH MONITOR EXCESS PENDING TECHNICAL EVALUATION ♦ COMPLETE THE FOLLOWING NOV DATA <table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">REGULATION:</td> <td style="width: 33%;">RULE:</td> <td style="width: 33%;">SECTION:</td> </tr> <tr> <td>REGULATION:</td> <td>RULE:</td> <td>SECTION:</td> </tr> </table>			REGULATION:	RULE:	SECTION:	REGULATION:	RULE:	SECTION:
REGULATION:	RULE:	SECTION:						
REGULATION:	RULE:	SECTION:						
FOR PERMIT CONDITION VIOLATIONS:								
CONDITION NO.	Subsection No.	NUMBER OF DAYS:						
Inspector:	I#	Date of Report:						

H:\pub_data\FORMS-Inspection/Admin/Breakdown (revised 3/02)

SITE #
EPISODE BREAKDOWN ID#
EPISODE ID#

Inspector: _____ I# _____
Date of Report: _____

SUPERVISOR RECOMMENDATION

RELIEF

*Supervisor must verify the inspector has reviewed the company's written report .
If no report is received, relief must be denied where excess emissions are confirmed*

NOT APPLICABLE – No violation documented

NOT APPLICABLE - After Source Test evaluation – No violation was documented

DENIAL

*If recommended for a reason other than lack of company written report, it must be verified that the inspector has reviewed the company's written report (see above).
Also, the applicable DENIAL CODE(S) must be checked:*

N NUISANCE

I INTENT OR NEGLIGENCE

R RECURRENT

M MAINTENANCE

D DEFINITION:

A ADMINISTRATIVE:

Not unexpected

Late reporting of event

Not Equipment Failure

None or Late written company report

COMMENTS: _____

SUPERVISING INSPECTOR: _____

DATE: _____

I. INTRODUCTION

II. OBSERVATIONS

III. STATEMENTS

IV. CONCLUSION

V. RECOMMENDATION