

Affirmative Defense (AD) Questions Guidance Document

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Introduction

This document provides general guidance for responding to the affirmative defense (AD) questions asked of entities asserting such a claim relating to a reported emission event. The questions and guidance are intended to assist you in gathering the information the agency will assess in evaluating your claim. Your case specific responses will be evaluated against the applicable demonstration criteria in [30 TAC §101.222](#). The citations below reference the demonstration criteria for non-excessive upset events. Similar requirements are included in 30 TAC §101.222(c) for unplanned maintenance, startup, shutdown (MSS) and 30 TAC §101.222(d) for excess opacity events.

Question No. 1:

What was the specific equipment or process that failed and resulted in this incident? If this incident was due to a failure of equipment at a facility that you do not own or operate, identify the name of the facility that had the failure and how the failure impacted your equipment or processes?

Rule Citation:

101.222(b)(1)- “the owner or operator complies with the requirements of §101.201 of this title (relating to Emissions Event Reporting and Recordkeeping Requirements). In the event the owner or operator fails to report as required by §101.201(a)(2) or (3), (b), or (e) of this title, the commission will initiate enforcement for such failure to report and for the underlying emissions event itself.”

Guidance:

The best-known cause is required at the time of reporting, but many times, additional information may become available after the Final Report. This is your opportunity to provide the full reason or cause of the emissions event. Did the information you submitted in your final report cover the following key elements? (as applicable to your incident)

- If all reporting requirements were fully met and there is no new information, there is no need to provide additional information for this AD criterion.
- If an extraordinary circumstance led to noncompliance with a reporting requirement, describe the extraordinary circumstance.

Question No. 2:

Identify the cause or causes of the emissions event and include all contributing factors that led to the emissions event. Discuss how the emissions event could not have been avoided by good design, maintenance, and operation practices, if applicable.

Discuss any sudden breakdown of equipment or process that was beyond the owner/operator’s control, if applicable.

Rule Citation:

101.222(b)(2)- “the unauthorized emissions were caused by a sudden, unavoidable breakdown of equipment or process, beyond the control of the owner or operator;”

Guidance:

As discussed above, additional information may become available after the Final Report. This is your opportunity to provide the full reason or cause of the emissions event.

Did the information you submitted cover the following key elements? (as applicable to your incident)

- The ultimate or root cause; the core issue that set in motion the reaction/event that ultimately led to the unauthorized emissions.
- If the ultimate/root cause is unknown, it is essential to explain why and/or how you determined it was unavoidable and beyond your control. Without this discussion the agency will be unable to review an AD claim.
- If the ultimate/root cause could not be determined, and you were able to rule out causes within your control, elaborate on the ruled-out causes and how they were ruled out.
- If the cause was a third party, identify the third party and address whether you communicated and coordinated with that third party to the maximum extent possible to prevent or reduce the impact of the incident. If the third-party cause is loss of a utility (e.g., electrical power or steam), address whether an alternate or back-up source is available or feasible.
- If an internal investigation or a failure analysis relating to the incident is ongoing provide a projected timeframe for completion.

This question may be skipped for unplanned MSS activities.

Question No. 3:

What design, maintenance or operation practices could have prevented this or other incidents with a similar cause? How did you determine that the incident could not have been prevented through better design, maintenance and/or operation practices?

Rule Citation:

101.222(b)(3)- “the unauthorized emissions did not stem from any activity or event that could have been foreseen and avoided or planned for, and could not have been avoided by better operation and maintenance practices or technically feasible design consistent with good engineering practice;”

Guidance:

Did the information you submitted cover the following key elements? (as applicable to your incident)

- Was the equipment involved in the event designed to operate under the conditions (weather, process temperature, pressure, flow rate, feed rate, moisture level, etc.) that could be reasonably expected to occur at this site?

- What routine and/or preventative maintenance practices do you follow for the equipment involved? At what frequency? Were these practices being followed at the proper frequency? Provide the most recent date(s) of any routine/preventative maintenance prior to the incident.
- Are there specific industry standards and practices applicable to the equipment involved? If yes, elaborate.
- If there are manufacturer’s recommendations for maintenance practices regarding the equipment involved, what are they and were they being followed?
- If certain practices were ruled out due to cost or feasibility, elaborate.

Question No. 4:

How were the air pollution control equipment or processes (if any) maintained and operated in a manner consistent with good practice for minimizing emissions and reducing the number of emissions events?

Rule Citation:

101.222(b)(4)- “the air pollution control equipment or processes were maintained and operated in a manner consistent with good practice for minimizing emissions and reducing the number of emissions events;”

Guidance:

Did the information you submitted cover the following key elements? (as applicable to your incident)

- If the involved air pollution control equipment or processes were maintained in good working order and operated properly and as designed during this event, state that that is the case.
- If the incident involved a breakdown or excursion of air pollution control equipment or processes, you may refer to the information provided for AD criterion #3 to support your position that the control equipment/processes were maintained and operated such that emissions from the originating process were minimized.

Question No. 5:

How soon was action taken to achieve compliance once the operator knew or should have known that applicable emission limitations were being exceeded?

Rule Citation:

101.222(b)(5)- “prompt action was taken to achieve compliance once the operator knew or should have known that applicable emission limitations were being exceeded, and any necessary repairs were made as expeditiously as practicable;”

Guidance:

Did the information you submitted cover the following key elements? (as applicable to your incident)

- If prompt action was taken and any repairs were made rapidly, describe the actions, and include repair dates if applicable.
- If any delays occurred in taking action or making repairs, explain why the delays were necessary.
- Include a timeline of the incident if discussing any delays.

If opacity exceeded authorized limits, please explain how this was determined (Method 9, Method 22, or Continuous Opacity Monitoring System (COMS)). Note: visible emissions from a flare should not be reported under the excess opacity rules, unless the flare has a specific opacity limit in a permit, rule, or order of the commission or as authorized by Texas Health and Safety Code §382.0518(g).

Question No. 6:

While the incident was ongoing, what steps did you take to minimize the amount and duration of the unauthorized emissions/excess opacity?

Rule Citation:

101.222(b)(6)- “the amount and duration of the unauthorized emissions and any bypass of pollution control equipment were minimized and all possible steps were taken to minimize the impact of the unauthorized emissions on ambient air quality;”

Guidance:

Did the information you submitted cover the following key elements? (as applicable to your incident)

- Discuss how the amount and duration of the unauthorized emissions were minimized. Note: this criterion applies whether or not pollution control equipment was bypassed.
- Discuss any steps taken to minimize the impact on ambient air quality.
- If the duration of the incident was intentionally lengthened to reduce the emissions rate of an air contaminant of concern and thereby minimize the impact on ambient air quality, state the reasoning on why this was the case.

Question No. 7:

Discuss what monitoring systems were in place during this incident. Were they operating during the entire duration of the incident?

Rule Citation:

101.222(b)(7)- “all emission monitoring systems were kept in operation if possible;”

Guidance:

Did the information you submitted cover the following key elements? (as applicable to your incident)

- If the equipment/process involved has a Continuous Emissions Monitoring System (CEMS) and/or COMS or other emissions monitoring system, state that that is the case. Furthermore, state if the emissions monitoring equipment was operational during the event.
- If a CEMS, COMS, or other emissions monitoring system was in place but was not in operation during the incident, explain why it was not possible to keep the emissions monitoring system in operation.

Question No. 8:

How did you document your actions in response to the incident?

Rule Citation:

101.222(b)(8)- “the owner or operator actions in response to the unauthorized emissions were documented by contemporaneous operation logs or other relevant evidence;”

Guidance:

Did the information you submitted cover the following key elements? (as applicable to your incident)

- How did you document your actions during the incident? Note: as part of follow-up questions, some or all of these documents may be requested and are required to be provided.

Question No. 9:

How many reportable and recordable emissions events (including this incident) have occurred at the facility/facilities contributing emissions during this incident for the 12-month period prior to this incident?

Have other incidents (both reportable and non-reportable) with a similar cause occurred at this facility in the past two years? If so, provide a list of such incidents. What measures have been taken to prevent recurrence?

Rule Citation:

101.222(b)(9)- “the unauthorized emissions were not part of a frequent or recurring pattern indicative of inadequate design, operation, or maintenance;”

Guidance:

Did the information you submitted cover the following key elements? (as applicable to your incident)

- You can meet this criterion by doing one of the following:
 - Option 1: Demonstrate there was no frequent/recurring pattern, or
 - Option 2: Demonstrate that while a frequent/recurring pattern MAY exist, it does NOT indicate inadequate design, operation, or maintenance.
- Both Option 1 and Option 2 require information on frequency of emissions events. This is a count of both reportable and non-reportable (aka recordable) emissions events, including the current incident, which have occurred at the facility/facilities that contributed emissions during the current incident, during the 12 months prior to this incident. You should include this frequency count in your response to this AD criterion.
- Option 2 applies when emissions events involving a given facility are recurring. You must provide information to show that the series of emissions events is not indicative of inadequate design, operation, or maintenance. Two possibilities for demonstrating this are:
 - Possibility 2A: The frequency at a given facility may be relatively high, but the causes of the various incidents were for the most part different; no individual cause has shown a frequent/recurring pattern. This requires providing information on the causes of the reportable and non-reportable emissions events that have occurred at the facility/facilities during the prior 12 months and showing that the causes are distinct from one another for the most part.
 - Possibility 2B: The frequency is relatively high, and the causes of the various incidents are the same or very similar; under these conditions it may be challenging to demonstrate that the series of emissions events is not indicative of inadequate design, operation, or maintenance.
 - A particularly thorough response to AD criterion #3 may help in showing AD criterion #9 is met.
 - A series of incidents with similar causes that occurred in rapid succession may help explain why a solution to the issue was not able to be implemented prior to immediate recurrence. An implementation timeline for the solution should be provided.
 - Note: in general, when emissions that are based on the same cause occur repeatedly, and no change in design, operation, or maintenance can prevent the emissions, such emissions may be considered predictable and should be permitted through an Alternate Operating Scenario or other means of authorization.

Question No. 10:

What were the facility/facilities total actual operating hours during the past 12 months?

Rule Citation:

101.222(b)(10)- “the percentage of a facility's total annual operating hours during which unauthorized emissions occurred was not unreasonably high; and”

Guidance:

Did the information you submitted cover the following key elements? (as applicable to your incident)

- Provide the total number of hours that the facility involved in the emissions event operated during the 12 months prior to the incident.
- If the facility involved in the emissions event has low annual operating hours, provide the reason. If the reason for the low number of annual operating hours is that the facility is a new facility, and the new facility is a “like-for-like” or an in-kind replacement, how many times has that facility been replaced in the 12 months prior to the incident?
- If the incident occurred over an extended time period, but emissions were not continuous over the entire duration, elaborate.

This question may be skipped for unplanned MSS activities, and for excess opacity events.

Question No. 11:

Identify any information you have (e.g., complaints from neighbors, fence line monitoring, air modeling) that indicates an off-site impact. Identify any information you have that indicates the unauthorized emissions caused or contributed to an exceedance of the national ambient air quality standard (NAAQS), a prevention of significant deterioration (PSD) increment, or to a condition of air pollution.

Rule Citation:

101.222(b)(11)- “the unauthorized emissions did not cause or contribute to an exceedance of the national ambient air quality standards (NAAQS), prevention of significant deterioration (PSD) increments, or to a condition of air pollution.”

Guidance:

Did the information you submitted cover the following key elements? (as applicable to your incident)

- Identify any information you have on the following: complaints from neighbors; fence line monitoring; air modeling; environmental/wildlife effect; injuries; or hospitalization caused by the incident.

Question No. 12:

Do you have any additional information to support your claim of an AD? If so, please provide it at this time.

Rule Citation:

N/A

Guidance:

This is an opportunity to provide additional information regarding the incident that you do not think fits into one of the questions above.

Question No. 13:

Please provide the name and contact information, including email address, for the highest-ranking individual at the plant/site.

Rule Citation:

N/A

Guidance:

This contact information is needed to address correspondence in the event a Notice of Violation or a Notice of Enforcement letter is issued.

Question No. 14:

In addition to the primary contact, please provide a secondary contact, including email address and title.

Rule Citation:

N/A

Guidance:

This is needed in case the primary contact is not available for an extended time.

Question No. 15:

Provide a non-confidential process description for the facility(s) involved in the emissions event.

Rule Citation:

N/A

Guidance:

A non-confidential process description is required to be included in the agency's investigation report. The process description does not have to go into a lengthy detail and can simply be a two or three sentence description of the facility that was involved in the emissions event.