

**PUBLIC HEARING AND OPPORTUNITY FOR PUBLIC COMMENT
FORSYTH COUNTY OFFICE OF ENVIRONMENTAL ASSISTANCE AND PROTECTION
WINSTON-SALEM, NC**

The Forsyth County Environmental Assistance and Protection Advisory Board will hold a virtual public hearing on Tuesday, April 26, 2022 at 10:00 a.m. concerning proposed changes to Forsyth County's portion of North Carolina's State Implementation Plan (SIP) and amendments to the Forsyth County Air Quality Control Ordinance. The proposed changes to the North Carolina SIP and rule amendments address the Environmental Protection Agency's finding of substantial inadequacy with respect to the treatment of excess emissions during periods of startup, shutdown and malfunction (SSM).

Any person may appear before the Environmental Assistance and Protection Advisory Board and bring representatives, consultants, and witnesses to be heard relative to the matters for which action by the Board is sought, provided advance notice is given to the Office Director of such matter to be considered. Persons wishing to attend may call this Office at 336-703-2440 or visit our website for more information.

The proposed rule changes are available at http://www.forsyth.cc/EAP/public_notices.aspx and at the Forsyth County Office of Environmental Assistance and Protection on the fifth floor of the Forsyth County Government Center at 201 North Chestnut Street in Winston-Salem, North Carolina. The public comment period begins today and ends on April 27, 2022. Date: March 25, 2022

Minor Barnette

Minor Barnette, Director

PROPOSED REVISIONS TO CHAPTER 3 OF THE
FORSYTH COUNTY CODE AND AIR QUALITY
CONTROL TECHNICAL CODE

PUBLIC HEARING TIME & DATES
10 AM, April 26, 2022

Telephone Number: (336) 703-2440

Fax Number: (336) 703- 2777

Proposed rule revision are available on our website at:
http://www.forsyth.cc/EAP/public_notices.aspx

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BACKGROUND

The State of North Carolina has four federally funded air pollution control agencies including the state agency, NC Division of Air Quality (NCDAQ), and three local programs operating in major metropolitan areas.¹ All of these agencies have been authorized by the North Carolina Environmental Management Commission (EMC) to operate independent, comprehensive, air pollution control programs within their jurisdictions.² Local programs are responsible for adopting and enforcing their own regulations pertaining to stationary air emission sources. The regulations adopted by local programs must be comparable and consistent with those adopted by the state agency. The implementing regulations used by the local programs were first adopted into North Carolina's State Implementation Plan (SIP) on May 2, 1991.³

On June 12, 2015 the US Environmental Protection Agency (EPA) issued a SIP call and finding of substantial inadequacy with respect to the treatment of excess emissions during periods of startup, shutdown and malfunction (SSM) for 45 states and local jurisdictions including the State of North Carolina and Forsyth County. This action, the SSM SIP call, has been challenged by several parties, including the State of North Carolina, in the US Court of Appeals for the District of Columbia and remains under litigation.

On April 2, 2020 EPA Region 4 signed a final rule withdrawing the SSM SIP call for the state of North Carolina. This withdrawal did not include Forsyth County. Subsequently, in October 2020, EPA issued new national policy allowing certain provisions governing SSM periods in SIPs including exemption and affirmative defense provisions. However, EPA withdrew this guidance in September 2021 and returned to the policy articulated in the 2015 SSM SIP call. EPA has also indicated that it plans to revisit the withdrawal of the SSM SIP call for the State of North Carolina.

On January 4, 2022 the US EPA issued a Finding of Failure to Submit State Implementation Plan Revisions to Amend Provisions Applying to Excess Emission during Periods of Startup, Shutdown and Malfunction to 12 state and local jurisdictions including Forsyth County. The current rules governing SSM in the Forsyth County Air Quality Technical Code (FCAQTC) were adopted in response to EPA's June 12, 2015 SSM SIP call consistent with the NCDAQ. These rules have not been submitted for inclusion in the Forsyth County portion of the SIP due to the subsequent litigation and uncertainty around this issue.

The Forsyth County Environmental Assistance and Protection Advisory Board conducted a public hearing on January 18, 2022 to consider rule revisions to address the SSM SIP call and address approvability concerns identified by EPA in earlier comments to the NCDAQ. At the conclusion of the Forsyth County EAP Advisory Board hearing on SSM rules, the North Carolina Division of Air Quality submitted comments explaining:

1 Local air quality programs are authorized in Buncombe County, Asheville-Buncombe Air Quality Agency; Forsyth County, Office of Environmental Assistance and Protection; and Mecklenburg County, Land Use and Environmental Services Agency-Air Quality.

2 Each local program has jurisdiction within its county and the NCDAQ has jurisdiction in the remaining 97 counties in North Carolina.

3 56 FR 20140

“...the North Carolina General Statutes allow that local program air quality rules may differ from the state rules so long as they are compatible and no less stringent and rules that are more stringent require approval by the Environmental Management Commission.”

The NC Division of Air Quality also emphasized the continuing uncertainty surrounding SSM stating:

“Given the ongoing evolution of actions related to EPA’s Startup, Shutdown, Malfunction State Implementation Plan Call, the Division of Air Quality finds it prudent to continue dialogue with FCEAP and EPA to provide appropriate guidance and work toward resolution of issues raised.”

The rule governing excess emissions from startup, shutdown, and malfunction for the NCDAQ is 15A NCAC 02D .0535. This rule was adopted by North Carolina on July 1, 1996 and was approved into North Carolina’s SIP on August 1, 1997. The rules governing SSM considered at the January 18, 2022 EAP Advisory Board meeting would differ substantially from North Carolina’s SSM rule and would likely be considered more stringent. Consequently, these rules would likely require consideration and approval by the North Carolina Environmental Management Commission before they could be submitted to EPA to satisfy the SIP call. Furthermore, any rules Forsyth County adopts to address SSM will probably require further revision considering ongoing litigation and EPA’s current position reconsidering the withdrawal of the SSM SIP Call for North Carolina.

As a result, Forsyth County consulted with the North Carolina Division of Air Quality and the US EPA, Region 4 to identify a solution to adequately address EPA’s SSM SIP call while deviating as little as possible from North Carolina’s rules to allow the submission. These discussions lead the Forsyth County OEAP Advisory Board to withdraw the SSM rules proposed at the January 18, 2022 hearing. As the alternative, the Forsyth County OEAP Advisory Board proposes to make no changes to the existing SSM rule, Sec. 3D-0535, in the Forsyth County Air Quality Control Ordinance and Technical Code and request the USEPA remove paragraphs (c) and (g) of this rule from Forsyth County’s Local Implementation Plan within the North Carolina SIP.

This change would have no effect on the Office of Environmental Assistance and Protection’s implementation of their program and the implementation would not differ from that of NCDAQ. As a result, this change would not require consideration and review by the NC EMC. However, the change would clarify the right for citizens and/or the US EPA to pursue enforcement for excess emissions during SSM events.

IMPLEMENTATION PLAN AND RULE CHANGES BEING CONSIDERED

The Environmental Assistance and Protection Advisory Board is conducting a public hearing for a proposed change to the Forsyth County Local Implementation Plan and the adoption of revisions to Chapter 3 of the Forsyth County Air Quality Control Ordinance and Technical Code (FCAQTC). The Forsyth County Local Implementation Plan is included as an appendix to the North Carolina State Implementation Plan (SIP).

The hearing is to receive comments on proposed changes to the Forsyth County Local Implementation Plan and the FCAQTC to address the Environmental Protection Agency's finding of substantial inadequacy with respect to the treatment of excess emissions during periods of startup, shutdown and malfunction (SSM), also known as the SSM SIP Call. The current rules governing SSM in the FCAQTC were adopted in response to EPA's SSM SIP Call consistent with the North Carolina Division of Air Quality (NCDAQ). These rules have not been submitted for inclusion in the Forsyth County LIP due to the subsequent litigation and uncertainty around this issue. The changes to the FCAQTC currently proposed would remove the earlier rule changes concerning SSM to match the rule previously approved in the Forsyth County LIP, Sec. 3D-0535.

In addition, Forsyth County proposes to request EPA to remove paragraphs (c) and (g) of Sec. 3D-0535 from Forsyth County's approved LIP. These are the portions of the rule that EPA found inadequately treated excess SSM emissions. Paragraph (c) provides that excess emissions during malfunctions may not be violations if certain criteria are met. Similarly, paragraph (g) provides that excess emissions during startup or shutdown may not be violations if certain criteria are met.

This change would have little, if any, practical effect on the Office of Environmental Assistance Protection's enforcement of the FCAQTC. There are no air emission sources in Forsyth County that have caused excess emissions during a malfunction that have requested consideration of those excess emissions under paragraph (c) of Sec 3D-0535. There are also no air emission sources in Forsyth County that have requested or been granted a startup or shutdown plan allowing excess emissions under paragraph (g) of Sec. 3D-0535. However, in the event that FCEAP determines excess emissions not to be a violation under Sec. 3D-0535(c) or (g), EPA and the public would have the opportunity to pursue enforcement for those excess emissions.

INSTRUCTIONS FOR UNDERSTANDING CHANGES

Additions: Words, sentences, or entire paragraphs to be added are underlined. For example:
Area sources mean all sources other than point sources.

~~Deletions~~: Words, sentences, or entire paragraphs to be deleted are struck through. For example:

~~Area sources mean all sources other than point sources.~~

Additions/Deletions: Words, sentences, or entire paragraphs that have been changed as a result of comments received prior to, or during, the public comment period or during the public hearing. For example:

~~July 1, 2009~~10, 2009

HEARING: Adoption of Revised Rules Regarding startup, Shutdown, and Malfunction (SSM)

SUBCHAPTER 3D AIR POLLUTION CONTROL REQUIREMENTS

SECTION 3D-0500. EMISSION CONTROL STANDARDS

Sec. 3D-0535. Excess emissions reporting and malfunctions

~~(a) Applicability: 15A NCAC 02D .0535 shall not be in effect if 15A NCAC 02D .0545 is valid. This Rule shall not apply to sources to which Rule .0524, .1110, or .1111 of this Subchapter applies. In the event that United States Environmental Protection Agency's regulation, State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction, published in the Code of Federal Regulations (CFR) at 40 CFR 52 on June 12, 2015, is:~~

- ~~(1) declared or adjudged to be invalid or unconstitutional or stayed by the United States Court of Appeals for the Fourth Circuit, by the District of Columbia Circuit, or by the United States Supreme Court; or~~
- ~~(2) withdrawn, repealed, revoked, or otherwise rendered of no force and effect by the United States Environmental Protection Agency, Congress, or Presidential Executive Order;~~

~~such action shall render Rule .0545 of this Subchapter as invalid, void, stayed, or otherwise without force and effect upon the date such action becomes final and effective. At the time of such action, sources that were subject to Rule .0545 of this Subchapter shall be subject to this Rule.~~

~~(a)(b) For the purposes of this Rule, Rule the following definitions apply:~~

- (1) "Excess Emissions" means an emission rate that exceeds any applicable emission limitation or standard allowed by any Rule in Sections 3D-0500, 0900, 1200 or 1400; or by a permit condition; or that exceeds an emission limit established in a permit issued under Forsyth County Code, Section 3Q-0700.
- (2) "Malfunction" means any unavoidable failure of air pollution control equipment, process equipment, or process to operate in a normal and usual manner that results in excess emissions. Excess emissions during periods of routine start-up and shut-down of process equipment shall not be considered a malfunction. Failures caused entirely or in part by poor maintenance, careless ~~operations~~, operations or any other upset condition within the control of the emission source are not considered a malfunction.
- (3) "Start-up" means the ~~initial commencement or subsequent commencement~~ of operation of any source that has shut-down or ceased operation for a period of time sufficient to cause temperature, pressure, process, chemical, or pollution control device imbalance that would result in excess ~~emission~~ emissions.
- (4) "Shut-down" means the cessation of the operation of any source for any purpose.

(b) This Rule does not apply to sources to which Sec. 3D-0524, 1110 or 1111 applies unless excess emissions exceed an emission limit established in a permit issued under Forsyth County Code, Section 3Q-0700 that is more stringent than the emission limit set by Sec. 3D-0524, 1110 or 1111.

(c) Any excess emissions that do not occur during start-up or shut-down are considered a violation of the ~~applicable~~ appropriate rule unless the owner or operator of the source of excess emissions demonstrates to the Director, that the excess emissions are the result of a malfunction. To determine if the excess emissions are the result of a malfunction, the Director shall consider, along with any other pertinent information, the following:

- (1) the air cleaning device, process equipment, or process has been maintained and operated, to the maximum extent practicable, consistent with good practice for minimizing emissions;
- (2) repairs have been made expeditiously when the emission limits have been exceeded;
- (3) the amount and duration of the excess emissions, including any bypass, have been minimized to the maximum extent practicable;
- (4) all practical steps have been taken to minimize the impact of the excess emissions on ambient air quality;
- (5) the excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance;
- (6) the requirements of Paragraph (f) of this Rule have been met; and
- (7) if the source is required to have a malfunction abatement plan, it has followed that plan.

All malfunctions shall be repaired as expeditiously as practicable. ~~The~~ However, the Director shall not excuse excess emissions caused by malfunctions from a source for more than 15 percent of the operating time during each calendar year. ~~The Director may require the~~ The owner or operator of a facility ~~to~~ shall maintain records of the time that a source operates when it or its air pollution control equipment is malfunctioning or otherwise has excess emissions. (Paragraph (c) is not included in Forsyth County's portion of the State Implementation Plan and only applies locally.)

(d) All electric utility boiler units shall have a malfunction abatement plan approved by the Director as satisfying the requirements of Subparagraphs (d)(1) through (d)(3) of this Rule Paragraph. In addition, the Director may require any other source to have a malfunction abatement plan approved by the Director as satisfying the requirements of Subparagraphs (d)(1) through (d)(3) of this Rule Paragraph. If the Director requires a malfunction abatement plan for a source other than an electric utility boiler, the owner or operator of that source shall submit a malfunction abatement plan within 60 days after receipt of the Director's request. The malfunction abatement plans of electric utility boiler units and of other sources required to have them shall be implemented at all times when a malfunction or other breakdown occurs. The purpose of the malfunction abatement plan is to prevent, detect, and correct malfunctions or equipment failures that could result in excess emissions. A malfunction abatement plan shall contain:

- (1) a complete preventive maintenance program including:
 - (A) the identification of individuals or positions responsible for inspecting, ~~maintaining,~~ maintaining and repairing air cleaning devices;

- (B) a description of the items or conditions that will be inspected and maintained;
 - (C) the frequency of the inspection, maintenance services, and repairs; and
 - (D) an identification and quantities of the replacement parts that shall be maintained in inventory for quick replacement;
- (2) an identification of the source and air cleaning operating variables and outlet variables, such as opacity, grain loading, and pollutant concentration, that may be monitored to detect a malfunction or failure; the normal operating range of these variables and a description of the method of monitoring or surveillance procedures and of informing operating personnel of any malfunctions, including alarm systems, ~~lights~~, lights or other indicators; and
- (3) a description of the corrective procedures that the owner or operator will take in case of a malfunction or failure to achieve compliance with the applicable rule as expeditiously as ~~practicable~~, practicable but no longer than the next boiler or process outage that would provide for an orderly repair or correction of the malfunction or 15 days, whichever is shorter. If the owner or operator anticipates that the malfunction would continue for more than 15 days, a case-by-case repair schedule shall be established by the Director with the source.

The owner or operator shall maintain logs to show that the operation and maintenance parts of the malfunction abatement plan are implemented. These logs are subject to inspection by the Director or his designee upon request during business hours.

(e) The owner or operator of any source required by the Director to have a malfunction abatement plan shall submit a malfunction abatement plan to the Director within ~~60 days~~ six months after it has been required by the Director. The malfunction abatement plan and any amendment to it shall be reviewed by the Director or his designee. If the plan includes the objectives described by Paragraph (d) of this Rule, the Director shall approve it. If the plan does not carry out the objectives described by Paragraph (d) of this Rule, the Director shall disapprove the plan. The Director shall state ~~the~~ his reasons for the disapproval. The person who submits the plan shall submit an amendment to the plan to satisfy the reasons for the Director's disapproval within 30 days of receipt of the Director's notification of disapproval. Any person having an approved malfunction abatement plan shall submit to the Director for his approval amendments reflecting changes in any element of the plan required by Paragraph (d) of this Rule or amendments when requested by the Director. The malfunction abatement plan and amendments to it shall be implemented within 90 days upon receipt of written notice of approval.

(f) The owner or operator of a source of excess emissions that last for more than four hours and that results from a malfunction, a breakdown of process or control equipment, or any other abnormal conditions, shall:

- (1) notify the Director or his designee of any such occurrence by 9:00 a.m. Eastern time of the Office's next business day of becoming aware of the occurrence and describe:
 - (A) name and location of the facility;
 - (B) the nature and cause of the malfunction or breakdown;
 - (C) the time when the malfunction or breakdown is first observed;

- (D) the expected duration; and
- (E) an estimated rate of emissions;
- (2) notify the Director or his designee immediately by 9:00 a.m. Eastern time of the Office's next business day when after the corrective measures have been accomplished;
- (3) submit to the Director within 15 days after the ~~notification in Subparagraph (f)(1) of this Rule~~, request a written report that includes:
 - (A) name and location of the facility;
 - (B) identification or description of the processes and control devices involved in the malfunction or breakdown;
 - (C) the cause and nature of the event;
 - (D) time and duration of the violation or the expected duration of the excess ~~emission~~ emissions if the malfunction or breakdown has not been fixed;
 - (E) estimated quantity of pollutant emitted;
 - (F) steps taken to control the emissions and to prevent recurrences and if the malfunction or breakdown has not been fixed, steps planned to be taken; and
 - (G) any other pertinent information requested by the Director.

After the malfunction or breakdown has been corrected, the Director may require the owner or operator of the source to test the source in accordance with Section 3D-2600 to demonstrate compliance.

(g) Start-up and shut-down. Excess emissions during start-up and shut-down are considered a violation of the ~~appropriate~~ applicable rule if the owner or operator cannot demonstrate that the excess emissions are unavoidable. To determine if excess emissions are unavoidable during start-up or shut-down the Director shall consider the items listed in Subparagraphs (c)(1), (c)(3), (c)(4), (c)(5), and (c)(7) of this Rule along with any other pertinent information. The Director may specify for a particular source the amount, time, and duration of emissions allowed during start-up or shut-down if necessary to limit excess emissions and protect the NAAQS. The owner or operator shall, to the extent practicable, operate the source and any associated air pollution control equipment or monitoring equipment in a manner consistent with best practicable air pollution control practices to minimize emissions during start-up and shut-down. (Paragraph (g) is not included in Forsyth County's portion of the State Implementation Plan and only applies locally.)(Ord. No. 9-94, 12-19-94, 11-11-96, 9-14-98, 5-14-01)

Sec. 3D-0545. ~~Treatment for malfunction events and work practices for start-up and shut-down operations~~Reserved

(a) ~~Applicability. In the event that United States Environmental Protection Agency's regulation, State Implementation Plans: Response to Petition for Rulemaking; Restatement and Update of EPA's SSM Policy Applicable to SIPs; Findings of Substantial Inadequacy; and SIP Calls to Amend Provisions Applying to Excess Emissions During Periods of Startup, Shutdown and Malfunction, published in the Code of Federal Regulations (CFR) at 40 CFR 52 on June 12, 2015, is:~~

- (1) ~~declared or adjudged to be invalid or unconstitutional or stayed by the United States Court of Appeals for the Fourth Circuit, by the District of Columbia Circuit, or by the United States Supreme Court; or~~
- (2) ~~withdrawn, repealed, revoked, or otherwise rendered of no force and effect by the United States Environmental Protection Agency, Congress, or Presidential Executive Order;~~

~~such action shall render this Rule as invalid, void, stayed, or otherwise without force and effect upon the date such action becomes final and effective. At the time of such action, sources that were subject to this Rule shall be subject to Sec 3D-0535 of this Subchapter. This Rule shall not apply to sources to which Sec 3D-0524, 1110, or 1111 of this Subchapter applies.~~

~~(b) For the purposes of this Rule, the following definitions apply:~~

- (1) ~~"Excess Emissions" means an emission rate that exceeds any applicable emission limitation or standard allowed by any rule in Sections 0500, 0900, 1200, or 1400 of this Subchapter; by a permit condition; or that exceeds an emission limit established in a permit issued pursuant to Section 3Q-0700 of Subchapter 3Q.~~
- (2) ~~"Malfunction" means any unavoidable failure of air pollution control equipment, process equipment, or process to operate in a normal and usual manner. Failures caused entirely or in part by poor maintenance, careless operations or any other upset condition within the control of the emission source shall not be considered a malfunction.~~
- (3) ~~"Start-up" means the initial commencement of operation or subsequent commencement of operation of any source that has shut down or ceased operation for a period sufficient to cause temperature, pressure, process, chemical, or a pollution control device imbalance that would result in excess emissions.~~
- (4) ~~"Shut down" means the cessation of the operation of any source for any purpose.~~

~~(e) Malfunctions. All facilities subject to this rule shall:~~

- (1) ~~Comply with the otherwise applicable emissions limits; or~~
- (2) ~~Comply with the source specific malfunction work practice standard permit condition described in Paragraph (d) of this Rule.~~

~~(d) Source Specific Malfunction Work Practice Standard Permit Condition.~~

- (1) ~~A facility may request a source specific malfunction work practice standard to be included in the state and federal enforceable section of its air permit, after review by EPA and the public.~~
- (2) ~~The source specific malfunction work practice standard shall minimize emissions during the malfunction event and require the malfunction duration to be minimized.~~
- (3) ~~Subparagraphs (e)(1) and (e)(5) of this Rule shall be addressed in the source specific malfunction work practice standard. Any facility requesting a source specific malfunction work practice standard shall meet the requirements of Subparagraphs (f)(1) through (f)(3) of this Rule.~~

- (4) ~~Requests shall be made through the application for a permit, permit modification, or permit renewal pursuant to the permit application requirements in Sections 3Q-0300 or 3Q-0500 of Subchapter 3Q. The public notice requirements specified in Sec. 3Q-0306 and 0307 of Subchapter 3Q shall be followed for all proposed work practice standards in non Title V permits. Public notice requirements specified in Sec. 3Q-0521 of Subchapter 3Q shall be followed for all proposed work practice standards in Title V permits.~~
- (5) ~~At all times, the source shall be operated in a manner consistent with good practice for minimizing emissions and the owner or operator shall use their best efforts regarding planning, design, and operating procedures. The owner or operator's actions during malfunction periods shall be documented by properly signed, contemporaneous operating logs or other relevant evidence.~~
- (6) ~~Failure to implement or follow the Source Specific Malfunction Work Practice Standard Permit Condition shall be a violation of Paragraph (d) of this Rule.~~
- (7) ~~Facilities that follow a Source Specific Malfunction Work Practice Standard Permit Condition during a malfunction that has been addressed in the Source Specific Malfunction Work Practice Standard Permit Condition shall be deemed in compliance.~~

(e) ~~The Director shall determine the appropriate enforcement response for excess emissions due to a malfunction. The Director shall consider, along with any other pertinent information, the following:~~

- (1) ~~The air cleaning device, process equipment, or process has been maintained and operated, to the maximum extent practicable, consistent with good practice for minimizing emissions;~~
- (2) ~~Repairs have been made expeditiously when the emission limits have been exceeded;~~
- (3) ~~The amount and duration of the excess emissions, including any bypass, have been minimized to the maximum extent practicable;~~
- (4) ~~All practical steps have been taken to minimize the impact of the excess emissions on ambient air quality;~~
- (5) ~~The excess emissions are not part of a recurring pattern indicative of inadequate design, operation, or maintenance;~~
- (6) ~~The requirements of Paragraph (h) of this Rule have been met; and~~
- (7) ~~If the source is required to have a malfunction abatement plan, the source has followed that plan. All malfunctions shall be repaired as expeditiously as practicable. The facility shall maintain records of the time that a source operates when it or its air pollution control equipment is malfunctioning or otherwise has excess emissions.~~

(f) ~~All electric utility boiler units shall have a malfunction abatement plan approved by the Director as satisfying the requirements of Subparagraphs (f)(1) through (f)(3) of this Rule. In addition, the Director may require any other source to have a malfunction abatement plan approved by the Director as satisfying the requirements of Subparagraphs (f)(1) through (f)(3) of this Rule. If the Director requires a~~

malfunction abatement plan for a source other than an electric utility boiler, the owner or operator of that source shall submit a malfunction abatement plan within 60 days after receipt of the Director's request. The malfunction abatement plans of electric utility boiler units and of other sources required to have malfunction abatement plans shall be implemented at all times. The purpose of the malfunction abatement plan is to prevent, detect, and correct malfunctions that may result in excess emissions. A malfunction abatement plan shall contain:

- (1) a preventive maintenance program including:
 - (A) the identification of individuals or positions responsible for inspecting, maintaining, and repairing air cleaning devices;
 - (B) a description of the items or conditions that will be inspected and maintained;
 - (C) the frequency of the inspection, maintenance services, and repairs; and
 - (D) an identification and quantities of the replacement parts that shall be maintained in inventory for quick replacement;
- (2) an identification of the source and air cleaning operating variables and outlet variables that may be monitored to detect a malfunction; the normal operating range of these variables and a description of the method of monitoring and of informing operating personnel of any malfunctions; and
- (3) a description of the corrective procedures that the owner or operator will take in case of a malfunction or failure to achieve compliance with the applicable rule as expeditiously as practicable. The owner or operator shall maintain logs to show that the operation and maintenance parts of the malfunction abatement plan are implemented.

(g) The owner or operator of any source required by the Director to have a malfunction abatement plan shall submit a malfunction abatement plan to the Director within 60 days after it has been required by the Director. The malfunction abatement plan and any amendment to it shall be reviewed by the Director. If the plan carries out the objectives described by Paragraph (f) of this Rule, the Director shall approve it. If the plan does not carry out the objectives described by Paragraph (f) of this Rule, the Director shall disapprove the plan. The owner or operator shall submit an amendment to the plan to satisfy the plan requirements within 30 days of receipt of the Director's notification. Any person having an approved malfunction abatement plan shall submit to the Director for approval amendments reflecting changes in any element of the malfunction abatement plan required by Paragraph (f) of this Rule or amendments when requested by the Director. The malfunction abatement plan and amendments to it shall be implemented within 90 days upon receipt of written notice of approval.

(h) The owner or operator of a source of excess emissions that last for more than four hours and that results from a malfunction shall:

- (1) notify the Director of any such occurrence by 9:00 a.m. Eastern time of the Division's Office's next business day of becoming aware of the occurrence and describe:
 - (A) name and location of the facility;
 - (B) the nature and cause of the malfunction;
 - (C) the time when the malfunction is first observed;

- (D) —the expected duration; and
- (E) —an estimated rate of emissions;
- (2) —notify the Director by 9:00 a.m. Eastern time of the Division's Office's next business day when the corrective measures have been accomplished;
- (3) —submit to the Director, within 15 days after the notification in Subparagraph (h)(1) of this Paragraph, a written report that includes:
 - (A) —name and location of the facility;
 - (B) —identification or description of the processes and control devices involved in the malfunction;
 - (C) —the cause and nature of the event;
 - (D) —time and duration of the violation or the expected duration of the excess emission if the malfunction has not been fixed;
 - (E) —estimated quantity of pollutant emitted;
 - (F) —steps taken to control the emissions and to prevent recurrences and if the malfunction has not been fixed, steps planned to be taken; and
 - (G) —any other pertinent information requested by the Director.

After the malfunction has been corrected, the Director may require the owner or operator of the source to test the source in accordance with Section 3D-2600 of this Subchapter to demonstrate compliance.

(i) —Start up and Shut down: During periods of start up and shut down, sources at facilities subject to this Rule shall comply with any one of the following:

- (1) —the applicable SIP emission limit in the Subchapter 3D rules, or a permit limit established in a permit issued pursuant to Section 3Q-0700 of Subchapter 3Q;
- (2) —the applicable work practice standards in Subparagraphs (j)(1) through (j)(13) of this Rule;
- (3) —work practice standards currently in effect for federal rules promulgated since 2009 that address compliance during start up and shut down operations for equipment that would be subject to the federal rule except for rule applicability exemptions; or
- (4) —source specific start up and shut down work practice standard permit conditions described in Paragraph (k) of this Rule.

Excess emissions during start up and shut down shall be considered a violation of the applicable rule if the owner or operator cannot demonstrate that the work practice standards in Subparagraphs (i)(2), (i)(3), or (i)(4) of this Rule were followed. Facilities may comply with Subparagraphs (i)(1) or (i)(2) of this Rule during start up and shut down without a specific permit condition. Facilities that choose to comply with Subparagraph (i)(3) of this Rule during start up and shut down shall apply for and receive a permit condition that indicates the specific federal work practice standard that shall be followed. Failure to implement or follow the work practice standard shall be considered a violation of Subparagraph (i)(3) of this Rule. Facilities that choose to comply with Subparagraph (i)(4) of this Rule during start up and shut down shall apply for and receive a permit condition described in Paragraph (k) of this Rule. Failure to implement or follow the work practice standard shall be considered a violation of Subparagraph (i)(4) of this Rule.

(j) ~~Generally Available Work Practices for Start-Up and Shut-Down Operations. The owner or operator shall, to the extent practicable, operate the source and any associated air pollution control equipment or monitoring equipment in a manner consistent with best practicable air pollution control practices to minimize emissions during start-up and shut-down. The following generally available work practice standards shall be followed:~~

- ~~(1) Periods of start-up and shut-down shall be documented in a permanent form suitable for inspection and submission to the Office. Documentation of start-ups and shut-downs shall include specific identification of each period of start-up or shut-down where a work practice standard is used and information required to demonstrate compliance with the applicable work practices. Start-up and shut-down operations shall occur as expeditiously as possible while minimizing emissions.~~
- ~~(2) Boilers and other combustion sources. All combustion sources shall commence operations while firing on the cleanest permitted fuel, to the extent practicable. The source shall minimize the start-up and shut-down periods to the extent practicable.~~
 - ~~(A) For sources for which the manufacturer has established recommended procedures for start-ups and shut-downs, the source shall follow the manufacturer's recommended procedures.~~
 - ~~(B) For sources for which there is no manufacturer recommended procedures for start-ups and shut-downs, the source shall follow recommended procedures for a unit of similar design for which manufacturer's recommended procedures are available.~~
- ~~(3) Baghouses shall be operated upon start-up of emission unit, or when baghouse temperature exceeds the dew point, whichever occurs later, or as specified by manufacturer.~~
- ~~(4) Cyclones shall be operated at all times, including start-up and shut-down of the emission unit.~~
- ~~(5) Electrostatic precipitators (ESP) shall be operated upon start-up of emission unit, or when effluent temperature exceeds the dew point, whichever occurs later, or as specified by manufacturer.~~
- ~~(6) Selective catalytic reduction (SCR) units shall be operated if catalyst bed temperature is greater than 400°F, or as specified by manufacturer.~~
- ~~(7) Non-selective catalytic reduction (NSCR) units shall be operated when the effluent temperature is between 700°F and 1500°F, or as specified by manufacturer.~~
- ~~(8) Scrubbers shall be operated at all times from initialization of start-up to completion of shut-down.~~
- ~~(9) Carbon adsorption shall be operated at all times from initialization of start-up to completion of shut-down.~~
- ~~(10) Biofilters shall be operated at all times from initialization of start-up to completion of shut-down.~~

- (11) ~~Sorbent injection shall be operated at all times the gas stream temperature is greater than 300°F, or as specified by manufacturer.~~
- (12) ~~Regenerative Thermal Oxidizers (RTO), thermal, and catalytic oxidizers shall be operated at all times from initialization of start up to completion of shut down.~~
- (13) ~~Safety and fire protection protocols shall be followed during start up and shut down of all sources.~~

(k) ~~Source Specific Start Up and Shut Down Work Practice Standard Permit Condition. A facility may request a source specific start up and shut down work practice standard be included in the state and federal enforceable section of their air permit, after review by EPA and the public. Such requests shall be made through the application for a permit, permit modification, or permit renewal pursuant to the permit application requirements in Section 3Q-0300 or 0500 of Subchapter 3Q. The public notice requirements specified in Sec.3Q-0306 and 0307 of Subchapter 3Q shall be followed for all proposed work practice standards in non Title V permits. Public notice requirements specified in Sec 3Q-0521 of Subchapter 3Q shall be followed for all proposed work practice standards in Title V permits. Requests for work practice standards for periods of start up and shut down shall include the following considerations:~~

- (1) ~~the work practice standard is specific to a source and the associated control strategy;~~
- (2) ~~demonstration that the use of the control strategy for the source is technically infeasible during start up or shut down periods;~~
- (3) ~~the work practice standard requires that the frequency and duration of operation in start up or shut down mode are minimized to the greatest extent practicable;~~
- (4) ~~at all times, the source shall be operated in a manner consistent with good practice for minimizing emissions and the source uses best efforts regarding planning, design, and operating procedures; and~~
- (5) ~~the owner or operator's actions during start up and shut down periods shall be documented by properly signed, contemporaneous operating logs or other relevant evidence.~~

~~Any source without a start up and shut down work practice standard permit condition shall be required to comply with any applicable emission limit. Facilities that follow a source specific start up and shut down work practice standard permit condition during start up and shut down shall be deemed in compliance.~~