Mitigation Plans for Exceptional Events in Texas

Insert Final Date Here

Developed by the Texas Commission on Environmental Quality

I. Background Information

Required Mitigation Plans and Timelines

Section 319(b) of the Federal Clean Air Act (FCAA) governs the identification of air quality monitoring data as exceptional events and how that data may be excluded from consideration for air quality regulatory purposes. The EPA adopted rules in 40 Code of Federal Regulation (CFR) §§50.14 and 51.930 to implement section 319, requiring states to adopt and implement mitigation plans in areas with historically documented or known seasonal events. As specified in the October 3, 2016 Exceptional Event rule, Texas is required to submit mitigation plans covering two areas, identified below. The plans are due September 30, 2018 (two years from finalization of the rule).

Pollutant	Event	County
$PM_{2.5}$	African Dust	Harris County
$PM_{2.5}$	High Winds	El Paso County

The Texas Commission on Evironmental Quality anticipates that measures outlined in this Mitigaion Plan for the areas and pollutants listed above also generally apply to other counties (Brazoria, Chambers, Fort Bend, Galveston, Liberty, Montgomery, and Waller) as well as for ozone in these counties. We anticipate the mitigation plan will be revised as necessary to cover other areas and pollutants.

II. Mitigation Plan Components

A. §51.930(a)(1-3) and §51.930(b)(2): Public notification and education programs for affected or potentially affected communities

- The TCEQ has mechanisms in place to forecast future and assess current air quality and to promptly notify the public when air quality concentrations of criteria pollutants exceed or are expected to exceed an applicable short-term National Ambient Air Quality Standard (NAAQS). When possible, these notifications take place at least 48 hours in advance of the event. These programs utilize methods appropriate to the communities being served. These include measures such as the following:

ED_014139_00000086-00001

- The TCEQ Air Quality Index (AQI) Report ([HYPERLINK "https://www.tceq.texas.gov/cgi-bin/compliance/monops/aqi_rpt.pl"]), which displays the latest and historical daily AQI measurements and is available online for the public to access.
- The Today's Texas Air Quality Forecast ([HYPERLINK "https://www.tceq.texas.gov/airquality/monops/forecast_today.html"]), which is a four-day forecast that is also disseminated via email using GovDelivery ([HYPERLINK "https://public.govdelivery.com/accounts/TXTCEQ/subscriber/new"]) and available on the agency social media accounts: ([HYPERLINK "https://twitter.com/TCEQNews"]. The public may subscribe to the forecast and follow agency social media, if desired.
  - The daily forecast is a combined categorical forecast utilizing the EPA's Air Quality Index (AQI) for ozone, $PM_{2.5}$, and PM_{10}.
  - The methods used for these forecasts follow the EPA Guidelines for Developing an Air Quality (Ozone and $PM_{2.5}$) Forecasting Program (EPA-456/R-03-002, June 2003). The TCEQ employs the following specific methods from this guidance: Persistence (Section 4.1.1 of guidance document), Climatology (4.1.2), Criteria (4.1.3), Regression Equations (4.1.5), Deterministic Air Quality Modeling (4.1.7), and the Phenomenological/Intuition Method (4.1.8).
  - The TCEQ has added language to the daily forecast email template and webpages to indicate when the forecasted particulate matter (PM) levels are anticipated to exceed the applicable short-term NAAQS and to direct the public to webpages that describe how to reduce exposure as well as how to reduce emissions that contribute to PM levels.
- The TCEQ also provides near real-time hourly $PM_{2.5}$ and ozone measurements from monitors across the state, which are available to the public on the TCEQ website ([HYPERLINK "https://www.tceq.texas.gov/agency/data/pm25.html"] and [HYPERLINK "https://www.tceq.texas.gov/cgi-bin/compliance/monops/select_curlev.pl"]).
- The monitoring data collected by the TCEQ as well as the forecasts described above are also submitted to EPA's AirNow ([HYPERLINK "http://www.airnow.gov"]) for public display.

- Through its [HYPERLINK "https://www.tceq.texas.gov/agency/air_main.html"], the TCEQ provides the public with technical, health, personal activity, planning and legal information, and resources concerning PM and ozone pollution. The TCEQ maintains fact sheets, as discussed below, which point individuals to additional health-related information from the Centers for Disease Control and Prevention, the Texas Department of State Health Services (DSHS), the Texas Department of Transportation, and the EPA. The TCEQ will coordinate with the DSHS, to ensure that relevant information from that agency is listed on the TCEQ website. At the same time, the TCEQ will ensure that the DSHS is provided with updated information relevant to Exceptional Events as that information becomes available. See protocol in Appendix B – Regular Communication and Outreach Plan.
- The TCEQ provides for public education concerning actions that individuals may take to reduce exposures to unhealthy levels of air quality during and following an exceptional event. For example, the agency maintains a webpage addressing air pollution from particulate matter [HYPERLINK "https://www.tceq.texas.gov/airquality/sip/criteria-pollutants/sip-pm"] and ozone [HYPERLINK "https://www.tceq.texas.gov/airquality/sip/criteria-pollutants/sip-ozone"], which provide basic information as well as measures citizens can take to protect themselves from unhealthy levels of PM and ozone. Similar information is available at EPA's [HYPERLINK "https://www.airnow.gov/"] where TCEQ forecasts and current data are displayed.

- The TCEQ also participates in outreach and educational opportunities throughout the state through work with regional air quality planning committees, advisory committees, local air pollution control programs, and through public informational meetings.
- The TCEQ Border Initiative is a comprehensive, cooperative effort to serve border residents. The TCEQ oversees its own stand-alone activities and also works with local, state, and federal stakeholders to maximize efforts aimed at improving the environment of the U.S.-Mexico border region. Information on these activities are available in English and Spanish on the agency [HYPERLINK "https://www.tceq.texas.gov/publications/gi/gi-392.html"].
- The Joint Advisory Committee (JAC) for the Improvement of Air Quality in the Ciudad Juárez, Chihuahua; El Paso, Texas; and Doña Ana County, New Mexico, air basin was established in 1996 to allow the local community to participate as partners across borders in the improvement of air quality in the Paso del Norte region. Through its [HYPERLINK "https://www.cccjac.org/"], the JAC provides air quality information from the TCEQ and partner agencies.
- Through the [HYPERLINK "http://takecareoftexas.org/"] (TCOT) program, the TCEQ provides educational outreach, including measures the public can take to maintain good air quality. This material is available online through the program [HYPERLINK "http://takecareoftexas.org/conservation-tips/keep-our-air-clean"], and is also available in the form of publications for electronic download and [HYPERLINK "http://takecareoftexas.org/teachers/publications"] in English and Spanish.
- The TCEQ also administers an Ozone Action Day forecast program for nine participating metropolitan areas across the state. This program is described at [HYPERLINK "https://www.tceq.texas.gov/airquality/monops/ozonefacts.html"] under the "What is an ozone forecast?" heading. When TCEQ meteorologists forecast an Ozone Action Day, the National Weather Service is contacted, which then broadcasts the information across its "weather wire," which is available online at [HYPERLINK "http://www.nws.noaa.gov/airquality/"]. The National Weather Service also coordinates with the National Oceanic and Atmospheric Administration (NOAA) to distribute information via the NOAA Weather Radio service, which is described at [HYPERLINK "http://www.nws.noaa.gov/nwr/"]. The TCEQ contacts officials in affected areas so that local community clean-air coalitions can notify media, government, business, and industry.

B. §51.930(b)(2)(ii): Steps to identify, study and implement mitigating measures

- When the TCEQ becomes aware that an Exceptional Event is likely to occur (e.g. approaching wildfire or dust storm), and the daily forecast indicates air quality conditions will be of sufficient severity (e.g. AQI of purple, indicating conditions are Very Unhealthy), additional measures to abate or minimize contributing controllable sources of identified pollutants that are within the jurisdiction of the agency will be considered on a case-by-case basis. Otherwise, the agency will rely on existing and future agency rules, SIP requirements, and permitting measures for reasonable controls and existing mechanisms for public outreach. For example, the daily forecast will notify the public when levels of PM or ozone are expected to exceed the applicable short term NAAQS (AQI of orange).
- The TCEQ addresses contributing controllable sources of pollutants through permitting of local sources and expects that existing controls will help minimize concentrations of identified pollutants.

- Other actions may include mandatory or voluntary measures, consideration of full-time or contingent controls on event-related as well as non-event related sources. These types of measures have been described in previous Exceptional Events demonstrations for Harris and El Paso Counties, as well as SIPs for those areas and are available through the TCEQ website:
    - [HYPERLINK "https://www.tceq.texas.gov/airquality/monops/pm_flags.html"]
    - [HYPERLINK "https://www.tceq.texas.gov/airquality/airmod/docs/ozone-data-exceptional-event-flag-demonstrations"]
    - [HYPERLINK "https://www.tceq.texas.gov/airquality/sip/hgb"]
    - [HYPERLINK "https://www.tceq.texas.gov/airquality/sip/texas-sip/elp/sip-elp"]
    - [HYPERLINK "https://www.tceq.texas.gov/airquality/mobilesource"]
- In the event of an Exceptional Event, such as a dust storm, the most effective measure to reduce exposure may be public notification. For example, mitigating measures such as wetting streets are not likely to reduce PM significantly under these circumstances. Therefore, measures may also include issuing advisories to the public. For example, citizens may be encouraged to:
    - Conserve electricity; consider setting your thermostat a little higher in the summer and lower in winter.
    - Participate in local energy conservation programs.
    - Keep car, boat, and other engines properly tuned, and avoid engines that smoke.
    - Avoid or slow your vehicle speed on dirt and unpaved roads.
    - Car pool, use public transportation, bike, or walk when possible.
    - Combine errands to reduce "cold starts" of your car and avoid extended idling.
    - Consider using gas logs instead of wood in your fire place or burn only dry, seasoned wood.
    - Mulch or compost leaves and yard waste instead of burning.
    - Refuel your vehicle in the late afternoon or evening and don't top off the tank.
    - Keep your vehicle maintained, including proper tire pressure.
    - Maintain your yard equipment, including changing the oil and replacing air filters regularly. Also consider using tools without motors. Hand tools such as shears, edgers, and push reel mowers are lightweight, quiet, and easy to use, and do not generate emissions.
    - Use paint and cleaning products with less or zero VOC emissions.
- Methods to minimize public exposure to high concentrations of identified pollutants could include those outlined in Section II.A above.
- The TCEQ collects and maintains data pertinent to Exceptional Events via an extensive monitoring network, which is described on the agency website: [HYPERLINK "https://www.tceq.texas.gov/agency/air_main.html"] as well as in the annual Monitoring Network Plan: [HYPERLINK "https://www.tceq.texas.gov/assets/public/compliance/monops/air/annual_review/historical/2016-AMNP.pdf"]. These resources identify the data the TCEQ collects, the party responsible for collecting and maintaining the data, and when, how, and to whom the data are reported.

- The TCEQ employs mechanisms to consult with other air quality managers in the affected area regarding the appropriate responses to abate and minimize impacts. These include ongoing efforts with regional air quality planning committees, advisory committees, and local air pollution control programs.
    - One such mechanism is the participation of TCEQ in the [HYPERLINK "http://www.tscc.state.tx.us/"] (TSCC). The purpose of the TSCC is to coordinate communication among member agencies concerning each agency's efforts to regulate toxic substances and harmful physical agents. The regular committee meetings occur quarterly.
    - Local Government Advisory Groups [HYPERLINK "https://www.tceq.texas.gov/agency/advise/local_government.html"]
    - Air Quality Advisory groups [HYPERLINK "https://www.tceq.texas.gov/agency/advise/air_quality_index.html"]
    - TCEQ regional air quality managers from the impacted area will be periodically updated, and routinely interact with local partners regarding air quality issues.

C. §51.930(b)(2)(iii): Provisions for review and evaluation of the mitigation plan and its implementation and effectiveness by the air agency and all interested stakeholders (e.g., public and private land owners/managers, air quality, agriculture and forestry agencies, the public)

The Exceptional Events Rule stipulates a 30-day public comment period for this mitigation plan. The TCEQ will comply with this requirement and has scheduled the window to begin on [insert date here]. The Rule also requires a response to comments document that will be submitted along with the mitigation plan to EPA.

The Exceptional Events mitigation plan will also be reviewed periodically and evaluated for effectiveness. Of the options presented in the Exceptional Events Rule as guidance, the TCEQ has elected to do the following:

(1) The TCEQ will initially review and revise, if appropriate, the mitigation plan every 3 years. However, if events occur on shorter or longer timeframes, the review, revision and recertification would occur with a more appropriate frequency. Additional mitigation plans may be required for other pollutant/event types as described in the Exceptional Events Rule, for example high ozone in El Paso due to wildfires.

(2) The TCEQ will submit the following required documentation:

a. Draft of initial mitigation plan posted for public comment

b. Public comments received

c. Response to comments document

d. Mitigation plan transmitted to the EPA

e. Correspondence between the EPA and the TCEQ

f. Subsequent reviews of the mitigation plan and associated documentation

Appendix A

Protocol for Notification of an Exceptional Event

- Request that the following entities subscribe to the daily AQI forecast issued by TCEQ:
  - EPA Region 6
  - Texas Department of State Health Services
  - Texas Department of Transportation
  - Local air agencies
  - Relevant (to El Paso or Harris Counties) media outlets (via Agency Communications)
  - Relevant (to El Paso or Harris Counties) advisory groups ([HYPERLINK "https://www.tceq.texas.gov/agency/advise"])
- When forecasted levels of PM are expected to exceed the applicable short-term NAAQS, the TCEQ will take the following actions:
  - Information will be included in the daily forecast directing the public to applicable TCEQ webpages describing how to lower exposure to $PM_{2.5}$ and mitigating measures the public can implement.
  - If necessary, coordinate and disseminate appropriate public health advice, warnings, and necessary follow-up advice or actions with the following:
    - EPA Region 6
    - Texas Department of State Health Services
    - Local air agencies
    - Texas Division of Emergency Management via TCEQ Emergency Management
  - Public websites and social media accounts will be updated with information from the daily Forecast.
  - Determine if additional actions should be taken by the TCEQ, including additional mitigation steps. If any actions are identified, they will be included in the daily forecast if time allows, or in a follow-up alert (i.e. email, social media post, etc.) sent to the email list identified above.

ED_014139_00000086-00006

Appendix B

Protocol for Regular Communication and Outreach

These activities may include collaboration between potentially affected local, state, tribal and federal air quality managers, and/or emergency response personnel.

Public Health Organizations

- The TCEQ will coordinate with the Texas Department of State Health Services (DSHS) regarding specific public health-related advice that should be disseminated by one or both agencies.
- The TCEQ will ensure that relevant information from that agency is listed on the TCEQ website and that the DSHS is provided with information for its website as well.
- At the same time, TCEQ will ensure that the DSHS is provided with updated information relevant to Exceptional Events as that information becomes available and follow up with additional public health notifications as necessary.

EPA

- The TCEQ meets monthly via teleconference with Region 6 staff. These phone calls will be used to provide regular communication with EPA regarding Exceptional Events.
- Additional discussion with EPA staff will occur as needed when Exceptional Events occur or are being prepared for demonstration submittal.

Local air quality managers

- The TCEQ meets with local air quality managers regularly via organizations such as Council of Governments and the Texas Clean Air Working Group. The TCEQ will share Exceptional Event-related information during the regular meetings of such organizations, as necessary.

Emergency Response

- The TCEQ regularly communicates with emergency management organizations through groups such as the Texas Division of Emergency Management. The TCEQ will share Exceptional Event-related information during the regular meetings of such organizations, as necessary.

ED_014139_00000086-00007