



Texas Commission on Environmental Quality

August 5, 2025

Summary of 2022, 2023, and 2024 Exceptional Event Demonstration for Fine Particulate Matter at Harrison, Kleberg, and Travis Counties

Background on Particulate Matter

The U.S. Environmental Protection Agency (EPA) sets health-based standards for the amount of very small particles, also known as particulate matter, allowed in the air. Fine particulate matter is made up of particles that are 2.5 micrometers and smaller (PM_{2.5}), much smaller than the width of a human hair. Breathing air with high levels of particulate matter can cause health problems.

Exceptional Events Caused Elevated Concentrations of PM_{2.5}

Exceptional events are unusual or naturally occurring events that affect air quality and are not reasonably controllable or preventable. States can request that EPA not consider air quality data affected by an exceptional event when determining if an area met an air quality health standard. EPA has stated that events that affect air quality such as wildfires, prescribed fires, high winds blowing dust, dust from the Saharan Desert, fireworks to celebrate days such as July 4th, etc., can be considered exceptional events. In 2022, 2023, and 2024, air quality in Harrison, Kleberg, and Travis Counties were impacted by PM_{2.5} exceptional events on multiple dates. Below is a list of locations, dates, and the type of exceptional event that the Texas Commission on Environmental Quality (TCEQ) identified as affecting air quality.

Date	Location (County)	Type of Event
June 14, 2022	Travis	Dust from Saharan desert
March 1, 2023	Travis	Smoke from fires in Mexico/Central America
May 5, 2023	Travis	Smoke from fires in Mexico/Central America
December 31, 2023- January 1, 2024	Travis	New Year's Eve Fireworks
February 27, 2024	Travis	Smoke from fires in Mexico/Central America
April 1, 2024	Kleberg and Travis	Smoke from fires in Mexico/Central America
April 4-6, 2024	Harrison	Smoke from prescribed fires in U.S.
April 17-18, 2024	Travis	Smoke from fires in Mexico/Central America
April 26-28, 2024	Travis	Smoke from fires in Mexico/Central America
May 7, 2024	Travis	Smoke from fires in Mexico/Central America
May 8-9, 2024	Kleberg and Travis	Smoke from fires in Mexico/Central America
May 10, 2024	Kleberg	Smoke from fires in Mexico/Central America

Date	Location (County)	Type of Event
May 16, 2024	Kleberg	Smoke from fires in Mexico/Central America
May 19-20, 2024	Kleberg	Smoke from fires in Mexico/Central America
May 21, 2024	Kleberg and Travis	Smoke from fires in Mexico/Central America
May 22, 2024	Travis	Smoke from fires in Mexico/Central America
May 23-27, 2024	Kleberg and Travis	Smoke from fires in Mexico/Central America
May 28, 2024	Kleberg	Smoke from fires in Mexico/Central America
June 3, 2024	Kleberg	Smoke from fires in Mexico/Central America
June 4, 2024	Kleberg and Travis	Smoke from fires in Mexico/Central America
June 5-6, 2024	Kleberg	Smoke from fires in Mexico/Central America
July 30, 2024	Kleberg	Dust from Saharan desert
July 31, 2024	Kleberg and Travis	Dust from Saharan desert
August 1, 2024	Travis	Dust from Saharan desert

Due to these exceptional events, the levels of PM_{2.5} at monitors within Harrison, Kleberg, and Travis Counties were not reasonably controllable or preventable. TCEQ plans to submit an exceptional event demonstration to EPA to exclude monitor data from these days.

Analyses to Support the Demonstration

Analyses of data related to the proposed exceptional events from 2022, 2023, and 2024 at Harrison, Kleberg, and Travis Counties show that the measured PM_{2.5} concentrations:

- were not reasonably controllable or preventable,
- were associated with natural events or human activity unlikely to recur at a particular location, and
- exceeded normal historical fluctuations.

EPA Decides Whether Standards Were Met

If EPA agrees with the demonstration for 2022, 2023, and 2024 days at Harrison, Kleberg, and Travis Counties, the PM_{2.5} concentrations on the referenced dates would not be considered when EPA determines whether the affected counties met the PM_{2.5} health-based standard.