
Exceptional Events: A State and Regional Perspective



Cara Keslar

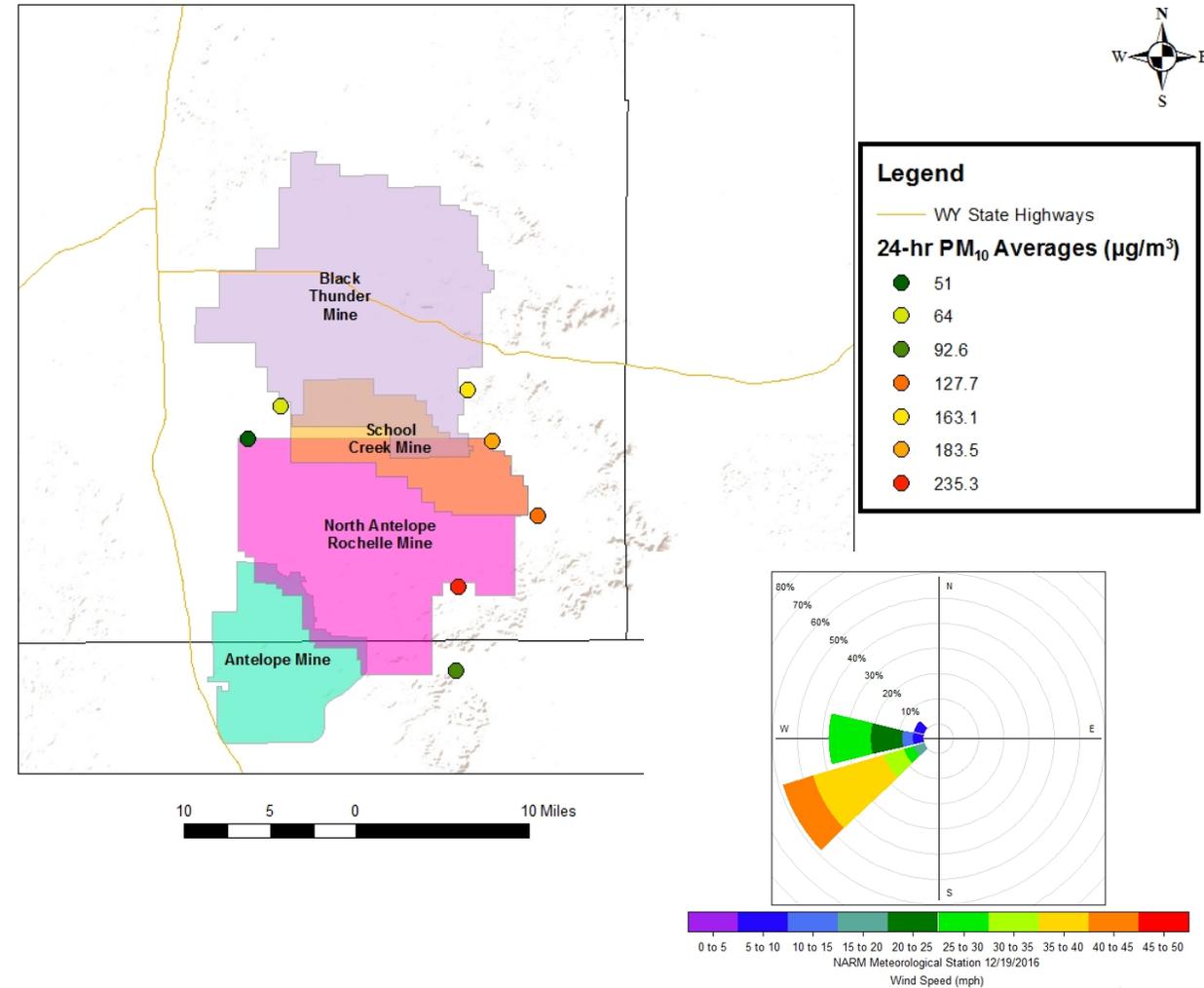
Wyoming DEQ – Air Quality Division

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Introduction

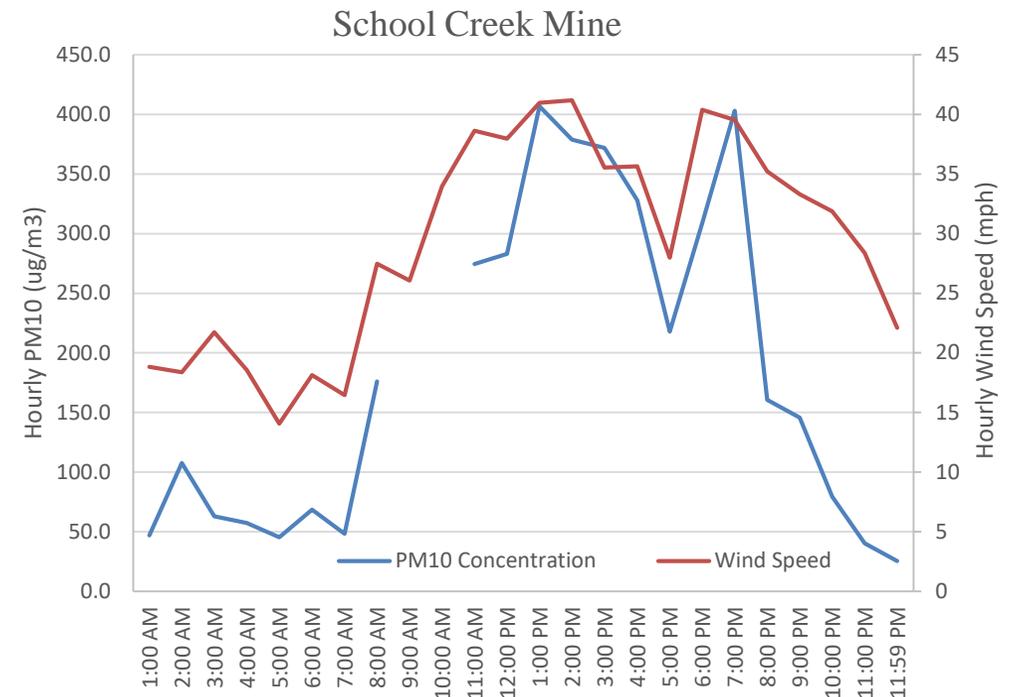
Case Study: Windblown PM₁₀ near industrial sources

- ◆ Initial Event Analysis
- ◆ Initial Notification
- ◆ Demonstration Specifics for windblown dust
- ◆ State Perspectives on Needs and Assistance from EPA



Initial Event Analysis

- ◆ 3 PM₁₀ exceedances reported near coal mines
- ◆ Checked validity of data with operator
- ◆ Gathered meteorology and surrounding monitored data
- ◆ Identified top wind speeds:
 - top hourly = 44 mph
 - top 5 min. = 60+ mph
- ◆ Identified any communication with public
 - NWS Blowing Dust Health Alert





Initial Notification Preparation

- ◆ Populated the Initial Notification Form from Region
- ◆ Since the exceedance was at or near a facility, evaluate operations during event and if facility is in compliance with their air permit.
- ◆ Evaluated Regulatory Significance

Key Elements of an Initial Notification:

- ✓ Agency
- ✓ Applicable NAAQS
- ✓ Regulatory Significance
- ✓ Designation Status / Design Value Period
- ✓ Monitor(s), Concentrations, Notes in AQS
- ✓ Design values with and without concurrence
- ✓ Maximum Design value in area
- ✓ Any monitors in area with insufficient data for design values

Initial Notification – Regulatory Significance

- ◆ Evaluate Regulatory Significance (see 50.14 (a)(1)(i)):
 - A) An actions to designate an area
 - B) The assignment of a classification
 - C) A determination of attainment
 - D) Attainment date extension
 - E) SIP call
 - F) Other actions on a case-by-case basis as determined by the Administrator

Examples of Supporting Points to Use F) on a case-by-case basis

- ◆ Exceedances and violations of the NAAQS are significant issues for state agencies.
- ◆ The State Agency's responsibility to the public is to provide accurate and high quality data that properly characterizes anthropogenic versus non-anthropogenic or exceptional events.

Examples of Supporting Points to Use F) on a case-by-case basis

- ◆ The data need to be handled correctly in the public data system (AQS) in order to be used appropriately to support policy decisions:
 - Outstanding petitions to EPA to designate violating areas
 - Existing agreements with EPA to use monitored data to determine compliance with NAAQS
 - Reliance on ambient data in New Source Review permitting for background, modeling and demonstrations
 - Reliance on ambient data for regional modeling exercises and/or NEPA analyses
 - Use of ambient data from AQS for health and air quality studies

Considerations Before Submitting Notification/Demonstrations

- ◆ Resource Intensive Process
- ◆ Does the violating monitor meet conditions for regulatory significance
- ◆ Ease of finding data shortly after the event versus the next NAAQS designation cycle
- ◆ Mitigation Plan potential
- ◆ Public communication/agency policy considerations

State and Regional Need:
“Alternative Pathways”
guidance document to address
situations beyond regulatory
significance

EPA Response to the Initial Notification

- ◆ 40CFR50.14 does not give EPA a deadline to respond, the Rule requires the state to submit an initial notification and that the State and the Region "engage in regular communication"
- ◆ The Preamble discusses an "intended timeline":
 - "We also intend to respond (via email or letter) to an air agency's Initial Notification within 60 days of receipt of the Initial Notification" (p.68265)
 - "EPA intends to acknowledge receipt shortly after receiving an air agency's Initial Notification and then formally respond to the Initial Notification within 60 days" (p.68268)



HIGH WIND BLOWING DUST DEMONSTRATION SPECIFICS

High Wind Dust Events Meeting the Threshold

- ◆ Wyoming’s high wind threshold is 25 mph “sustained” (5- minute average in Guidance)
- ◆ High wind dust events “will be considered natural events in cases where windblown dust is entirely from natural undisturbed lands in the area or where all anthropogenic sources are reasonably controlled.”
- ◆ Dust controls on anthropogenic sources “shall be considered reasonable in any case in which the controls render the anthropogenic source as resistant to high winds as natural undisturbed lands in the area.”

Reasonably Controllable/ Reasonably Preventable

- ◆ Rule is broadly written to discuss these items must be demonstrated
- ◆ May include NSR Permit conditions/BACT measures, BACM or RACM applied, dust control plans
- ◆ To prove reasonable controls:
 - 1) Identification of natural and anthropogenic sources causing and contributing to the exceedance of violation (including local)
 - 2) Identify relevant SIP or other enforceable measures
 - 3) Provide evidence of effective implementation and enforcement

Large-Scale High Energy Dust Events

- ◆ For large-scale and high-energy high wind dust events will generally meet the nRCP requirement if:
 - The event is associated with a dust storm and is the focus of a Dust Storm Warning
 - The event has sustained winds that are >40 mph
 - The event has reduced visibility \leq 0.5 miles
- ◆ Preamble “[T]he event must be associated with measured exceedances occurring at multiple monitoring sites over a large geographic area...”(p.68259)

State and Regional Need:
Rural states would like an alternative method to demonstrate reduced visibility and more flexibility on what constitutes a “Dust Storm Warning”

Demonstration Preparation: other required items

- ◆ Wyoming AQD has posted a document of examples of useful demonstration items:

[Technical Elements of Exceptional Events Demonstrations](#)

- ◆ Mitigation considerations

[Tool Templates and Links: Mitigation Plan Checklist](#)

- ◆ Public comment

[Continuing Litigation: NRDC and Sierra Club vs. EPA](#)



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Regional Needs and Considerations from the recent WESTAR Fall Business Meeting

- ◆ Finish guidance documents listed in Exceptional Events Rule (SI, Alternate Pathways)
- ◆ Clarify/modify existing guidance documents (ozone/wildfire, prescribed fire, windblown PM)
- ◆ Continued EPA support and enhancement of technical tools (AirNow Tech, MJO tools)
- ◆ More use of EPA/Regional Working groups to identify EE's, share data and analyses
- ◆ Streamline process for large scale events (e.g. September wildfires)
- ◆ Approve and post more successful Demonstrations; More Regional review of unsuccessful demonstrations with feedback
- ◆ Commitments to timely review and communication from Regions