

***1001 DUST IN THE WIND: ARIZONA DUST STORMS AND THE EXCEPTIONAL EVENTS RULE**

INTRODUCTION

Dust storms are common global weather phenomena that typically occur in subtropical latitudes throughout the world.¹ In Arizona, the fast-moving walls of particles are seasonal, driven by the winds from outflow boundaries of the North American monsoon thunderstorms.² The National Oceanic and Atmospheric Administration reports that one to three dust storms per year strike the Phoenix area, although new data from the National Climatic Data Center (NCDC) indicate an increase of activity.³ The NCDC's storm-event database shows that eight dust storms struck the greater Phoenix area between July and September of 2011.⁴ This dramatic departure from historical averages demands investigation into the public health effects and potential regulatory solutions surrounding the increase in dust storm events near metropolitan areas.

One consequence of this increase in activity is dust storms from rural areas blowing into cities and exceeding the air quality standards set forth by the U.S. Environmental Protection Agency (EPA).⁵ Under the Clean Air Act, the EPA has established national ambient air quality standards (NAAQS) to address concerns about the impacts of air pollution on public health.⁶ The EPA estimates that between 1990 and 2020, the Clean Air ***1002** Act will prevent over 230,000 early deaths, primarily from lessening ambient particulate matter.⁷ These standards dictate the acceptable levels of carbon monoxide, lead, nitrogen dioxides, ozone, particulate matter (PM₁₀ and PM_{2.5}), and sulfur dioxide.⁸ When a city fails to maintain the ambient air quality standard for any of these categories, it may be classified as a nonattainment area and then must create a State Implementation Plan.⁹ The plan must indicate what steps a locality will take to come into compliance with the NAAQS, and it must receive EPA approval.¹⁰

While the EPA has authority to waive violations of the NAAQS under its exceptional events rule (EER), the agency refused Phoenix's waiver request after dust storms in 2008 led to multiple violations of standards for particulate matter.¹¹ The EPA's position creates the potential for Maricopa County to lose over \$1 billion in federal funding unless the Arizona Department of Environmental Quality (ADEQ) can formulate a cleanup plan that receives EPA approval.¹² To avoid the potential financial consequences of noncompliance, policy makers have suggested reform to streamline the process for a city to obtain an EER waiver from the EPA.¹³

I. PROCEDURAL HISTORY

Following amendments to the Clean Air Act in 2005, the EPA gained discretion to permit air quality violations that qualify as "exceptional events."¹⁴ Under the regulations subsequently adopted by the EPA, an exceptional event is defined as:

[A]n event that affects air quality, is not reasonably controllable or preventable, is an event caused by human activity that is unlikely to recur at a particular location or a natural event, and is determined by the

Administrator in accordance with 40 CFR 50.14 to be an exceptional event. It does not include stagnation of air masses or meteorological inversions, a meteorological event *1003 involving high temperatures or lack of precipitation, or air pollution relating to source noncompliance.¹⁵

ADEQ sought to obtain an EER waiver for air quality violations following four incidents in 2008 that the state claimed were the result of natural dust storms--events ADEQ believed were exceptional.¹⁶ From March 14, 2008 through June 4, 2008, the West 43rd Avenue air quality monitoring station in Phoenix detected particulate-matter levels in excess of the NAAQS.¹⁷

On May 12, 2010, the EPA denied ADEQ's request for a waiver under the EER.¹⁸ The EPA responded in a report finding that ADEQ did not establish whether the event was controllable, natural, or a product of human activity.¹⁹ Additionally, the report rebutted ADEQ's assertion that the event was unlikely to recur because its threshold for finding unusual winds would translate into the Phoenix area receiving such winds approximately 100 days per year.²⁰

II. PROPOSED LEGISLATION

On May 8, 2012, U.S. Representative Jeff Flake introduced the Commonsense Legislative Exceptional Events Reforms (CLEER) Act of 2012,²¹ which is aimed at amending the Clean Air Act to "ease [the] EPA regulatory burden for states with natural dust occurrences."²² The bill proposes to streamline the process of filing for an exceptional event waiver through four additions to the Act that define the criteria for an exceptional event with input from the states, create a 90-day deadline for an EPA decision on an EER waiver request, identify the burden of proof required for approval of such a request, and make the EPA's findings appealable.²³

The proposed legislation would make it more predictable for state officials seeking a waiver with the EPA for air quality violations following dust storms.²⁴ It has been estimated that, following the high number of dust storms in 2011, it would take nearly 1100 workdays *1004 to prove the claims as required by current EPA rules.²⁵ Ultimately, the proposed amendment to the Clean Air Act's EER waiver seeks to immunize states from some types of liability following EPA air quality violations because, as Representative Flake stated, "[s]tates shouldn't face bureaucratic penalties from the EPA for naturally occurring events, like dust storms."²⁶ On May 7, 2012 the bill was referred to the House Committee on Energy and Power where it will await further action from Congress.²⁷

III. RECOMMENDATION

Although the proposed amendment to the Clean Air Act's exceptional event rule is an understandable response from a state that has been plagued with dust storms, it fails to address the underlying issue: air quality violations are accompanied by negative impacts on public health. While it is unlikely that the storms are caused entirely by human activity, the increase in agricultural land use and construction in once-undisturbed desert environments play roles in the increase of dust in Arizona's air.²⁸ On a broader scale, climate scientists have predicted long-term drought in the western United States that they predict will result in less vegetation to keep soil from blowing into the wind.²⁹

Policy makers should focus on abating the levels of particulate matter in the air by mitigating upwind dust sources, without exception for whether the event is natural or human-caused. The CLEER Act serves partly as a method for states to more easily understand the exceptional-events-rule process, but in effect would allow states an avenue for avoiding cleaning up dangerous levels of pollutants in the air. A more focused policy goal should consider easing financial penalties for states that make concerted efforts to lessen air pollution. In a time where a changing climate demands environmental policy solutions aimed at protecting public health, Arizona's policy makers should be concerned with EPA air quality compliance, rather than avoiding financial penalties by creating regulatory loopholes.

Footnotes

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- ¹ U.N. CONVENTION TO COMBAT DESERTIFICATION, GLOBAL ALARM: DUST AND SANDSTORMS FROM THE WORLD'S DRYLANDS 16 (Yang Youlin et al., eds., 2002).
- ² Chuck George, *Monsoon 101: Arizona Haboobs*, TUCSON NEWS NOW (posted June 11, 2012, 9:43 PM, updated June 27, 2012, 9:12 PM), [http:// www.tucsonnewsnow.com/story/18761866/monsoon-101-arizona-haboobs](http://www.tucsonnewsnow.com/story/18761866/monsoon-101-arizona-haboobs).
- ³ *Major Dust Storm Moves Through Arizona*, NAT'L WEATHER SERV. FORECAST OFFICE -- PHX., ARIZ., <http://www.wrh.noaa.gov/psr/pns/2011/July/DustStorm.php> (last updated July 7, 2011).
- ⁴ *Storm Events Database*, NAT'L CLIMATIC DATA CTR., [http:// www.ncdc.noaa.gov/stormevents/](http://www.ncdc.noaa.gov/stormevents/) (under "Select State or Area," choose "Arizona"; click "Search"; under "Event Type," choose "(Zone) Dust Storm"; under "Zone," choose "Greater Phoenix Area"; click "Search") (last visited Sept. 24, 2012).
- ⁵ See, e.g., Judy Fahys, *Climate Change to Create a Dustier Southwest*, SALT LAKE TRIB. (May 14, 2011, 11:18 PM), [http:// www.sltrib.com/sltrib/politics/51656888-90/climate-crusts-dust-livestock.html.csp](http://www.sltrib.com/sltrib/politics/51656888-90/climate-crusts-dust-livestock.html.csp).
- ⁶ *Summary of the Clean Air Act*, U.S. ENVTL. PROT. AGENCY, [http:// www.epa.gov/lawsregs/laws/caa.html](http://www.epa.gov/lawsregs/laws/caa.html) (last updated August 23, 2012).
- ⁷ *Second Prospective Study -- 1990 to 2020*, U.S. ENVTL. PROT. AGENCY, <http://www.epa.gov/air/sect812/prospective2.html> (last updated Nov. 25, 2011).
- ⁸ *State Implementation Plan*, MARICOPA CNTY. AIR QUALITY DEP'T, [http:// www.maricopa.gov/aq/divisions/planning_analysis/state_implementation_plan.aspx](http://www.maricopa.gov/aq/divisions/planning_analysis/state_implementation_plan.aspx) (last visited Sept. 29, 2012).
- ⁹ *Id.*
- ¹⁰ *Id.*
- ¹¹ Shaun McKinnon, *EPA Warns County: No Excuses on Air Quality*, ARIZ. REPUBLIC (May 26, 2010, 12:00 AM), [http:// www.azcentral.com/arizonarepublic/news/articles/2010/05/26/20100526air-fail0526.html](http://www.azcentral.com/arizonarepublic/news/articles/2010/05/26/20100526air-fail0526.html).
- ¹² *Id.*
- ¹³ Michelle Ye Hee Lee, *Air-Quality Rule Change Sought*, USA TODAY (May 29, 2012, 4:11 AM), http://www.usatoday.com/USCP/PNI/Valley%20&%20State/2012-05-29-PNI0526met-air-qualityPNIbRd_ST_U.htm.
- ¹⁴ Clean Air Act, Pub. L. No. 109-59, § 6013, 119 Stat. 1144, 1883 (codified as amended at 42 U.S.C. § 7619 (2012)).
- ¹⁵ 40 C.F.R. § 50.1(j) (2012).
- ¹⁶ U.S. ENVTL. PROT. AGENCY REGION 9, REVIEW OF EXCEPTIONAL EVENT REQUEST: MARICOPA COUNTY, AZ, 24-HOUR PM,^o, MARCH 14, 2008, APRIL 30, 2008, MAY 21, 2008, JUNE 4, 2008 4 (2010).

17 *Id.* at 5.

18 *Id.* at 35.

19 *Id.* at 34.

20 *Id.* at 8.

21 Commonsense Legislative Exceptional Events Reforms (CLEER) Act of 2012, H.R. 5381, 112th Cong. (2012).

22 Press Release, Congressman Flake Introduces the CLEER Act (May 8, 2012), available at <http://flake.house.gov/news/documentsingle.aspx?DocumentID=294353>.

23 CLEER Act, *supra* note 21.

24 Press Release, *supra* note 22.

25 Shaun McKinnon, *Dealing with Desert Dust*, AZCENTRAL.COM (Feb. 4, 2012), <http://www.azcentral.com/news/air-quality/?content=6-desert>.

26 Press Release, *supra* note 17.

27 CLEER Act, *supra* note 21.

28 McKinnon, *supra* note 25.

29 Nat'l Climatic Data Ctr., *State of the Climate -- Drought -- July 2012*, NAT'L OCEANIC & ATMOSPHERIC ADMIN. (Aug. 15, 2012), <http://www.ncdc.noaa.gov/sotc/drought/2012/7>.