

Time to Fix the Damage of Weakened Chemical Disaster Prevention Regulations

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Abstract

The Trump administration weakened regulations through changes on rules that have been improved during the Obama years. An example is the reversal in 2019 of the improvements to the U.S. Environmental Protection Agency Risk Management Program, Chemical Disaster Prevention Rule. In 2013 a catastrophic explosion of ammonium nitrate in West, Texas, provided the impetus to improve the original regulations after an investigation of its consequences. The justification for reversing the improvements was provided by one of the three federal investigations conducted by the U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives which alleged, without proof, that the West, Texas explosion was caused by arson and thus nonpreventable. This commentary reviews the details of this reversal and recommends that the U.S. Environmental Protection Agency, now under the Biden Administration, resurrect its 2016 Risk Management Program chemical disaster rule in order to prevent future chemical facility catastrophes.

Keywords

EPA-RMP, negative corpus, West, Texas, disaster prevention, ammonium nitrate

Introduction

The Trump administration weakened environmental regulations through changes to protective rules that had been improved during the Obama years. A case in point is the reversal of the Environmental Protection Agency (EPA) Risk Management Program (RMP) Chemical Release Disaster Prevention rule (chemical disaster rule). In 2013 there was a catastrophic chemical explosion in West, Texas (TX), causing fifteen deaths, major community destruction, and made obvious the failure of the existing regulations to prevent the explosion. Three federal agencies, the U.S. Bureau of Alcohol, Tobacco, Firearms and Explosives (ATF), the Chemical Safety Board (CSB), and the Occupational Safety and Health Administration (OSHA), conducted investigations in parallel. The egregious character of this disaster gave the EPA (under the Obama administration) the opportunity to propose preventive improvements to the RMP; the Chemical Release Disaster Prevention rule, which was carefully crafted from 2013 to 2016, proposed in March 2016 and published by Obama's EPA in January 2017, one week prior to the inauguration of President Donald Trump.

The Trump administration EPA announced in March 2017 that the chemical disaster rule would be delayed

until February 2019. In response to a lawsuit from environmental groups, the D.C. U.S. Circuit Court of Appeals struck down Trump's EPA postponement as illegal and arbitrary, and ordered the agency to put the rule into effect. In response, the Trump EPA on May 2018, published for comment a new drastically weakened chemical disaster rule, rolling back most of the previous disaster prevention procedures in the original March 2017 rule. The final "guttled" rule was published by the EPA on 21 November 2019.¹ Almost immediately in January 2020, thirteen environmental organizations and the United Steelworkers Union sued the EPA to reverse the 2019 chemical disaster rule and restore the disaster prevention rules the EPA had deleted.

The key justifications for overturning the 2017 disaster prevention rules in the new chemical disaster rule were that the original trigger of the regulation, the West, TX catastrophic explosion of ammonium nitrate, was a criminal act performed by a mysterious arsonist

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and thus unpreventable. This spurious assertion that arson was the cause of the West, TX explosion was also prominently offered by the chemical industry lobbyists in their comments opposing the proposed new chemical disaster rule. Not surprisingly, the Trump EPA's justification for the weakened new chemical disaster regulations echoed the chemical industry lobbyists talking points. The Trump EPA suggested that the West, TX tragedy was the principal basis for the Obama EPA to propose a new chemical disaster rule. It then argued that since the West, TX explosion was an unpreventable catastrophe it was unwarranted to propose new rules based on that incident.

The Biden administration EPA should restore the RMP improvements that were stricken down in 2019 and strengthen the prevention of chemical catastrophes. A critical addition to the initial ruling must be the inclusion of the explosive chemical ammonium nitrate to the list of regulated substances. Ammonium Nitrate, the explosive fertilizer causing the West, TX catastrophe, was surprisingly not recommended to be included in the EPA-RMP list of regulated substances.

Reversal of Proposed EPA Rule

On 17 April 2013, a catastrophic chemical explosion caused fifteen fatalities and destroyed one-half of the town of West, TX, at the cost of \$100 million in damages and losses to the town's economy. In addition to the deaths, there were three hundred injuries and five hundred homes and public buildings destroyed (including two schools and a nursing home).²

EPA was subsequently tasked by an Executive Order from President Obama to improve the regulations that had failed to prevent the horrendous explosion. After working for three years to collect evidence on improving prevention programs, EPA published a new proposed Accidental Chemical Release Prevention rule in March 2016, and a final rule in January 2017.¹ As mentioned above, the overruling of the RMP chemical disaster improvements were the conclusion of a vigorous opposition campaign by chemical industry lobbyists and the incoming EPA officials of the new Trump administration.

The petrochemical industry generally resists regulation aimed at controlling and preventing environmental chemical releases, asserting that voluntary actions of well-meaning chemical operators will sufficiently prevent mishaps and catastrophes.³ From 2012 to 2015 the chemical industry spent at least \$182 million opposing mandatory standards that would require facilities to transition away from the most dangerous chemicals.³ This includes \$32 million dollars of lobbying efforts against chemical regulations spent by the American Chemical Council (ACC)—the trade association

representing the major chemical companies in the United States.³ In their public comments, the ACC had consistently opposed all the RMP reforms proposed by the Obama administration.

As chemical explosions continue in the United States, it is an unacceptable and deadly risk to rely on voluntary actions of the chemical industry. This opposition to improvements of EPA-RMP-chemical disaster prevention measures after the West explosion bore fruit for the industry in 2018 when Scott Pruitt, the first EPA administrator under President Trump and barely one month on the job, accepted a petition from an impressive array of chemical industry lobbyists to stay the rule. The most influential petitioner of the stay petition was a powerful coalition of corporations representing the petrochemical industry. It was called the "Risk Management Program Coalition" (RMPC), a no-holds-barred, anti-regulatory corporate lobbying effort openly sponsored by the U.S. Chamber of Commerce, The American Petroleum Institute, and the ACC.

Arson and the "Negative Corpus" Invention

The centerpiece of the argument that the RMPC presented against the EPA improved regulations was that the West, TX explosion which had triggered the new rules was an act of arson and thus not preventable. This argument was based on an unsupported assertion by the ATF. The ATF made this unsubstantiated claim after an unfinished and flawed investigation of the West explosion, conducted in parallel with the root-cause investigation published by the CSB in 2016.

No specific testimonial or physical evidence of this so-called "arson" was ever published by the ATF. ATF's investigative theory is that since they were not able to find any other causes of the explosion, then it must have been arson. This bizarre and unscientific deduction is supposedly given credence by calling on an obscure pseudo-legal ATF theory: the "negative corpus" deduction ("if there is a failure to determine any clear physical cause of the fire ... then it must be arson"). The methodology to arrive at a "negative corpus" decision is to sequentially eliminate any potential causes (presumably using scientific evidence) and then basing a conclusion upon the last remaining cause in the list that could not be eliminated. The method does not require any supporting scientific evidence of this "last" cause. This is contrary to root-cause investigations in which the absence of scientific evidence precludes a conclusion of cause and effect. In the West, TX case, ATF simply reported arson as the cause of the explosion in a four-line paragraph in a press release dated May 2016 without presenting any evidence of their claim.

The National Fire Protection Association (NFPA) publishes the recognized standard guide to conduct fire and explosion investigations (NFPA23-921). In this document, the NFPA discusses cause determination and clearly rejects the so-called “negative corpus” as a valid approach because it is “unscientific” and describes it as a discredited methodology.⁴ Although the ATF offered a bounty of \$50,000 to any member of the public who could identify an arsonist responsible for the explosion, there have not been any takers for this reward and the fictitious arsonist has not been discovered since the reward was announced in 2013. The ATF claims to continue its investigation of the West explosion but never published any formal investigation report—after eight years, perhaps one of the longest unfinished investigations ever conducted by the Bureau. The ATF reported costs of the West, TX investigation is so far, over \$2 million.⁵

The opposition to the improved EPA regulation has continued to repeat the arson fiction to provide cover for the corporate anti-regulatory lobbyists opposing any improvements of the EPA Risk Management Program’s chemical disaster prevention regulations. Their argument is that the arson claim from ATF exonerates the chemical industry, the State of Texas, and federal regulators of any need to improve on the failings which caused the catastrophic explosion.

Texas Public Radio Follow-Up of West Explosion in 2021

Reporter Dominic Anthony Walsh, from Texas Public Radio (TPR) the Texas affiliate of National Public Radio (NPR), published an account of the aftermath of the West explosion in February 2021, eight years after the fatal explosion.^{4,6} For this account, Walsh interviewed Jordan Barab, former Deputy Assistant Secretary (second in command) of OSHA during the Obama Administration. Barab had led OSHA’s policy review on chemical safety, which was triggered by the West explosion. In his comments to TPR/NRP,^{4,6} he stated that ATF might have hidden reasons for declaring the West explosion “unresolved.” Barab declared to TPR/NRP,^{4,6} “I don’t have to speculate on the political implications of that kind of finding. We can look at what happened at EPA.” On the reversal of the EPA improvements to prevent future explosions like West, Barab stated in reference to the Trump EPA’s weakening of the CDR rule,

their (EPA’s) major justification was that the Obama regulation had not considered the fact that ATF had found that this was an intentional act. And therefore, most of the improvements involved in the new EPA

regulation were irrelevant because it was just some crazy person who started the fire. And again, this kind of violates all the principles of process safety management and how to prevent these kinds of explosions.⁶

The CSB conducted a complete root-cause investigation of the West explosion and included evidence-based prevention recommendations, published in 2016.² Its recommendations largely endorsed the rule proposed by the EPA in 2016 and served as a basis for Obama’s EPA to propose improvements on the EPA-RPM chemical disaster prevention regulations. I had the privilege of launching and managing this investigation in 2013 during my tenure as Chairperson of the CSB.

TPR reported that the CSB, after a comprehensive investigation, issued nineteen recommendations to various stakeholders (EPA, OSHA, State of Texas, and so on) in its final report on the West explosion.^{2,4,6} Six recommendations have been “closed,” in CSB terminology, meaning that the recommendations were accepted and implemented. However, thirteen still are “open,” i.e., they have not been accepted or implemented. The key concern that remains unresolved is the mishandling of the widely used fertilizer that exploded at the West facility: ammonium nitrate. Explosions of this chemical occur periodically not only in the United States but around the world. The latest known ammonium nitrate explosion occurred in August 2020, in Beirut, Lebanon, causing two hundred deaths and the destruction of a great sector of the port of Beirut.

The CSB remains focused on two of its “open” recommendations to EPA and OSHA. First, CSB has recommended to EPA to add ammonium nitrate to a list of chemicals that receive more oversight. Second, it recommends that OSHA mandate nonflammable storage bins and water sprinklers for facilities that handle ammonium nitrate.

Mr. Walsh from TPR/NPR also interviewed the current CSB Chairman and CEO, Katherine Lemos, in February 2021.^{4,5} She declared: “These same regulatory gaps that existed in 2013 for ammonium nitrate still exist today. And it is disturbing to me that facilities can still use combustible wooden materials and storage bins to house ammonium nitrate.” These wooden storage bins were identified by CSB as one of the key factors causing the explosion when they caught fire preceding the explosion.² Lemos also declared: “They’re not required to use sprinklers in storage buildings.” She further stated, “These two (recommendations) are open, and I find them of critical importance. And it keeps me awake at night.”^{4,6}

The CSB reported in 2016 that there were forty sites that stored large amounts of fertilizer-grade ammonium nitrate in Texas. According to the CSB investigation report, the Texas Commission on Environmental

Quality confirmed that at least thirty-three of them were near homes, schools, hospitals, or nursing homes.^{2,4,6}

TPR/NPR reports that after the explosion, then-Texas Attorney General Greg Abbott began writing opinions that allowed the state to deny open records requests about ammonium nitrate facilities. The current attorney general, Ken Paxton, has continued this practice. Mr. Walsh reported that the Texas Commission denied TPR/NPR's 2021 records request for more information on where the storage sites are located and who operates them.⁶

Conclusions

In summary, the CSB investigation found a continuing risk that was feasible and urgent to abate. These findings were not acknowledged by the Trump EPA or the corporate lobbyists of industry's "Risk Management Coalition," which successfully advocated against needed EPA actions to improve the RMP rule and in effect, sabotaging the efforts of Obamas' EPA to prevent future chemical catastrophes in general, and the urgent need to address the dangers of ammonium nitrate explosion hazards in particular. The community of safety professionals who conduct scientific investigations (including the CSB) has never endorsed the ATF's "negative corpus" arson deduction. It is not a valid scientific or legal approach to find cause. The Trump administration's EPA and its chemical industry allies used this bizarre arson claim successfully to derail the EPA-RMP chemical disaster improvements recommended by the Obama administration in 2016.

There are high stakes on improving prevention of chemical catastrophes in general and special urgency to prevent explosions of the widely used fertilizer ammonium nitrate. Affirmative steps to improve the EPA-RMP Regulations—as proposed by the Obama administration—should be an urgent priority of President Biden's environmental agenda. It should be emphasized that a new improved revision of EPA's RMP chemical disaster rule must include ammonium nitrate on the list of regulated substances surprisingly missing from Obamas' revised EPA-RMP of January 2017. This is the right prevention action to protect other communities from devastation. Ammonium nitrate explosion on 17 April 2013 cost the town of West, the state of Texas, and the Federal Government an estimated \$100 million to reconstruct the town, a process that is ongoing to this day. Fifteen emergency responders and community members died trying to save their town. No post-explosion reconstruction can bring them back. We can only enact regulations that will prevent others from suffering the same fate.

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