



CREATING GOOD JOBS, A CLEAN ENVIRONMENT, AND A FAIR AND THRIVING ECONOMY

July 30, 2021

## Comments on Proposed Rule: Accidental Release Prevention Requirements: Risk Management Programs Rule Under the Clean Air Act

Docket ID: EPA-HQ-OLEM-2021-0312

The BlueGreen Alliance, a coalition of the nation's largest labor unions and environmental organizations collectively representing millions of members and supporters, urges the Environmental Protection Agency (EPA) to stand up for industrial workers, fenceline communities, and first responders by strengthening the Chemical Disaster Rule to prioritize saving lives and preventing injuries and illness.

The EPA's Risk Management Program (RMP) covers 12,500 commercial and industrial facilities that use or store large amounts of specific, highly toxic or highly flammable chemicals.<sup>1</sup> The RMP is the nation's primary defense against catastrophic industrial chemical releases, fires and explosions. It is meant to save lives—the lives of our workers, fenceline communities and first responders. It is estimated that 177 million Americans live close enough to an industrial facility to be harmed by a chemical release, fire, or explosion, and that risk falls disproportionately on low-income and minority communities.<sup>2</sup>

EPA data also show that serious industrial chemical accidents occur every two-and-a-half days in communities across the nation.<sup>3</sup> In its original justification for the Chemical Disaster Rule, EPA cited more than 1,500 reportable accidents, which were responsible for 58 deaths, more than 17,000 injuries or instances of medical treatment sought, almost 500,000 people evacuated or sheltered-in-place, and over \$2 billion in property damages, just in the ten years preceding the rulemaking.<sup>4</sup> This calculation did not include less immediate impacts, such as damage to productivity, property values, and the environment; contraction of regional economies; expenses incurred by public agencies; and long-term health effects among workers and community members.<sup>5</sup> The EPA at the time understood that the "changes to the RMP rule [would] help protect local first responders, community members, and employees from death or injury due to chemical facility accidents."<sup>6</sup>

### **The Risk of Chemical Disasters Falls on Students, Communities of Color, and Workers**

These chemical hazards have the potential to affect the lives of millions of Americans. At least one in three schoolchildren in America attends school in the vulnerability zone of a hazardous facility, meaning they are in harm's way in the event of a chemical release, fire, or explosion. A review by the Agency for Toxic Substances and Disease Registry (ATSDR) found that students accounted for 11 percent of reported injuries caused by industrial chemical releases during the period of 1999 to 2008.<sup>7</sup> The EPA reports that over 175 million Americans live in the worst-case

scenario zones for chemical disasters, the majority of whom are people of color.<sup>8</sup> Of course, there are also countless workers at industrial facilities whose lives are placed in danger simply by coming to work. Of all reported chemical incidents from 1999-2008, injuries were highest among workers at 49% compared to injury rates of the community.<sup>9</sup> And when a chemical release, fire, or explosion does occur, we turn to first responders, who often do not have the information or training they need to respond effectively and safely to the incident.

Vulnerability to chemical disasters disproportionately impacts people of color. The percentage of African Americans living in fence-line zones around 3,433 of the most dangerous facilities is 75 percent greater than for the United States as a whole, while the percentage of Latinos in these zones is 60 percent greater.<sup>10</sup> Further, the poverty rate in these areas is 50 percent greater than the country as a whole. In fact, the Center for Effective Government found that people of color make up almost half of the total population living within a one-mile fence-line zone near these facilities, and that they are about twice as likely as white individuals to live in these zones.<sup>11</sup> Another study found that chemical incidents are more likely to occur in counties housing larger black populations.<sup>12</sup>

Additionally, low income children of color are among the most vulnerable, being more than twice as likely as their counterparts above the poverty line to live in fence-line communities. It is well-recognized that infants and children are uniquely vulnerable to toxic chemical exposures, which can result in lifelong damage to the developing brain and other organ systems.<sup>13</sup>

Workers too are exposed to preventable injury and harm while at work and also at home if they live in a fence-line community. The current RMP rule does not require that employees be represented or have influence over decisions being made about their own health and safety. In 2017, California implemented a process safety management rule for oil refineries that, among other things, required employees to have a representative(s) of their choosing to be involved in all decisions related to safety and hazard prevention.<sup>14</sup>

## **Chemical Disasters Are Preventable**

Among the major industrial chemical incidents that occur each year in our nation, the need to strengthen the RMP standards became particularly clear in 2012 at the Richmond, California, refinery, when an 8-inch diameter pipe carrying fuel oil ruptured, releasing a vapor cloud that quickly expanded 100 yards in all directions, engulfing 19 refinery workers. Less than two minutes later, the vapor cloud ignited into a massive fireball and a plume of smoke that spread over the entire northeastern Bay Area.<sup>15</sup>

During that brief window, 18 of the Chevron employees crawled to safety. The last worker, a Chevron firefighter, climbed into the cab of his fire engine moments before the flames rolled over it. Thankfully, he survived. But the disaster was not confined to the plant: in the following hours, some 15,000 people in the communities downwind of the plant sought medical attention for symptoms of exposure to smoke and fire gases. According to the U.S. Chemical Safety and Hazard Investigation Board (CSB), among the immediate health effects were chest pain,

shortness of breath, headaches, and sore throat. About 20 people were admitted to hospitals as inpatients for treatment.<sup>16</sup>

According to the CSB, in the years leading up to the fire, Chevron’s managers had learned from their own engineers in at least six different reports that pipes in the plant’s crude unit were corroding and needed inspection and replacement. With little incentive to do so, managers ignored those warnings, even after a corroded pipe failed in 2007 causing a fire that injured a Chevron employee. By 2009, Chevron engineers warned of the potential for a “catastrophic failure,” and yet still managers deferred action because workers did not have a voice in safety measures that could save their lives and prevent injury and illness. By 2012, the crude unit piping failed exactly where the engineers had predicted it would.<sup>17</sup>

In response to this and several other incidents, the EPA developed several new guidelines to ensure companies take steps to prevent chemical releases, fires, and explosions, while also working with first responders to improve emergency preparedness and coordination. Following a three-year process that included three separate public comment periods, EPA adopted a modest set of changes to the RMP, focused on preventing catastrophes and ensuring that first responders are informed and protected. Since then, several changes made to the Chemical Disaster Rule in 2019 have weakened regulations leaving workers, communities and first responders vulnerable to bodily harm, injury and death.

### **Key Elements Needed to Strengthen the RMP Rule**

#### **Ensure workers are meaningfully represented at the decision-making table.**

The best way to ensure employee/contractor safety is to include workers in every step of incident prevention, investigation and response requirements. The employer—in consultation with employees and employee representatives—should create and implement a written plan to effectively provide for employee participation in Risk Management Programs. Effective participation includes but is not limited to: having an employee representative(s) with veto power, chosen by employees, to participate in all stages of developing and implementing a risk management program and access to all documents or information pertaining to RMP.

#### **Protect environmental justice and fenceline communities.**

It is also important for the EPA to update the rule to address the environmental injustice and disproportionate, cumulative impacts from potential chemical disasters on fenceline and downwind communities who often live near multiple RMP facilities. In Deer Park, Texas one elementary school with a majority Hispanic population sits in 41 different vulnerability zones.<sup>18</sup> This is not an isolated example either. There are 69 other schools that sit within the vulnerability zones of 30-41 facilities. On the other end of the spectrum, there are still 19,302 schools that are in more than one vulnerability zone ranging from two zones to nine.<sup>19</sup> Five out of the five metropolitan areas identified as most high risk<sup>20</sup> with multiple vulnerability zones have majority students of color in their public schools.<sup>21</sup> In addition to the ongoing threat of chemical disasters from living in multiple vulnerability zones, many of these communities also face poorer health outcomes due to toxic air pollution from these same facilities,<sup>22</sup> which can increase the risk of

cancer, damage the immune system and cause reproductive, neurological, respiratory and other health problems.<sup>23</sup>

### **Include climate-related prevention and safety measures.**

Climate-related prevention and safety measures are needed to protect communities and workers from the double threat of chemical disasters and climate disasters, such as hurricanes, floods, and other “natech” incidents (natural + technological domino effect). Extreme weather events caused by climate change pose a particular threat that should be incorporated into planning for RMP facilities. The frequency and magnitude of industrial chemical releases (and the threat of fires and explosions) increase during hurricane season in Gulf states, where many oil refineries and chemical facilities are concentrated.<sup>24</sup> In 2017, Hurricane Harvey triggered an explosion at the Arkema chemical facility in Texas that exposed and sickened several first responders who had no knowledge of the chemicals housed in the facility.<sup>25</sup>

### **Implement a hierarchy of controls.**

Stronger prevention measures, e.g., identification and use of available, inherently safer methods such as lock-out tag out can eliminate or reduce catastrophic hazards altogether using the hierarchy of control. For many chemicals and processes, there are readily available safer alternatives. Five years after the disastrous 2012 explosion and fire at Chevron’s oil refinery in Richmond, the State of California adopted a comprehensive refinery Process Safety Management (PSM) rule to protect workers. A RAND economic analysis showed that implementing the new requirements would cost the state’s 14 refineries about \$58 million in total each year, but that the median cost of a single major incident was \$220 million, not including costs associated with worker injuries or fatalities, or damage to the company’s reputation, or costs incurred by local communities. Moreover, RAND found that the regulations would help prevent the statewide economic disruptions that have occurred in the state after major refinery incidents, such as the 2015 ExxonMobil explosion in Torrance, California, which caused a \$6.9 billion contraction in the state’s economy in the first six months following the incident. Across the U.S., almost ninety percent of facilities surveyed by the Center for American Progress that had switched to safer processes reported that the switch cost the facility \$1 million or less.<sup>26</sup>

### **Require robust emergency planning.**

Emergency planning should require multiple and widely advertised worker and community input meetings and mechanisms. There also needs to be enforcement of the five-year rule to update RMP plans which means increased EPA monitoring and staff capacity. RMPs should also include common-sense emergency response and incident management measures such as back-up power, alerts in multiple languages, fence-line air monitoring, leak detection and repair, routine emergency response exercises, and other best practices of safety leaders. Even four years after the ExxonMobil Torrance Refinery Explosion, the Chemical Safety Board has documented community concern during public hearings about the inadequacy of community notification procedures.<sup>27</sup>

### **Expand coverage of the RMP program to more facilities, processes and chemicals.**

After September 11, many cities analyzed or reexamined their vulnerability to a terrorist attack including proximity of dense populations to significant quantities of chemical hazards such as chlorine. Many cities, including Baltimore, then implemented plans to minimize the use and storage of hazardous chemicals such as chlorine at their wastewater treatment plants. Cities and towns alike also considered the chemical hazards that were coming in and out by rail carrying oil, chlorine or other dangerous chemicals. All across the country, from rural neighborhoods to urban centers people are made vulnerable to chemical disaster by railcars carrying dangerous materials. In fact, Washington D.C. had railcars rerouted which had routinely carried chlorine within 4 miles of the Capitol.<sup>28</sup> Former EPA Administrator and current Governor of New Jersey, Christine Todd Whitman, has warned continuously since her administration, and most recently in mid-June, that there are inadequate defenses for a deliberate attack on chemical facilities.<sup>29</sup>

**Strengthen enforceability, corrective action, and accountability, including necessary information access in multiple languages.**

In 1998, an explosion equivalent to a 2.0 earthquake left four workers dead and six injured at the Kean Canyon explosives manufacturing plant. The cause of the explosion was a combination of plant design, construction flaws and worker error. In its analysis of this catastrophe, the Chemical Safety Board recommended multiple improvements to risk management including specific written operating procedures, safety training and certification for workers and managers, audits and more. Language barriers were also identified as a safety hazard since the majority of employees spoke Spanish but training videos and safety training sessions were conducted in English.<sup>30</sup> More than twenty years after this explosion, there are still no safeguards ensuring proper training and safety measures implemented in the native language of employees to prevent a chemical disaster.

Too many Americans have had to evacuate, shelter in place, or race to pick up their children from school as an industrial fire burns or a chemical release heads their way. The BlueGreen Alliance requests that the Environmental Protection Agency take action to protect industrial workers, fenceline communities, first responders, and our nation's infrastructure by strengthening the Chemical Disaster Rule with a people first approach.

- <sup>1</sup> U.S. Environmental Protection Agency (EPA), “Risk Management Plan (RMP) Rule Overview,” April 4, 2018. Available: [www.epa.gov/rmp/risk-management-plan-rmp-rule-overview](http://www.epa.gov/rmp/risk-management-plan-rmp-rule-overview).
- <sup>2</sup> Earthjustice, *A Disaster in the Making*, Updated December 2, 2019. Available online: <https://earthjustice.org/features/toxic-catastrophes-texas-national-chemical-disaster-rule>
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- <sup>4</sup> U.S. EPA, “EPA Activities Under EO 13650: Risk Management Program (RMP) Final Rule Questions & Answers,” August 2017. Available: [www.epa.gov/sites/production/files/2017-08/documents/rmp\\_final\\_rule\\_qs\\_and\\_as\\_8-02-17.pdf](http://www.epa.gov/sites/production/files/2017-08/documents/rmp_final_rule_qs_and_as_8-02-17.pdf).
- <sup>5</sup> Save EPA, “Proposed Rollback of Risk Management Program,” July 25, 2018. Available: [www.saveepaalums.info/RMP](http://www.saveepaalums.info/RMP).
- <sup>6</sup> U.S. EPA, “EPA Activities Under EO 13650: Risk Management Program (RMP) Final Rule Questions & Answers,” August 2017. Available: [www.epa.gov/sites/production/files/2017-08/documents/rmp\\_final\\_rule\\_qs\\_and\\_as\\_8-02-17.pdf](http://www.epa.gov/sites/production/files/2017-08/documents/rmp_final_rule_qs_and_as_8-02-17.pdf)
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- <sup>9</sup> Morbidity and Mortality Weekly Report, “Persons Injured During Acute Chemical Incidents – Hazardous Substances Emergency Events Surveillance, Nine States, 1999-2008,” April 10, 2015. Available: <https://www.cdc.gov/mmwr/preview/mmwrhtml/ss6402a3.htm>
- <sup>10</sup> Coming Clean, *Who’s In Danger? Race, Poverty, and Chemical Disasters*, May 2014. Available: [www.comingcleaninc.org/assets/media/images/Reports/Who's%20in%20Danger%20Report%20FINAL.pdf](http://www.comingcleaninc.org/assets/media/images/Reports/Who's%20in%20Danger%20Report%20FINAL.pdf)
- <sup>11</sup> Center for Effective Government, *Poverty, Race, and Unequal Chemical Facility Hazards*, January 2016. Available: [www.foreffectivegov.org/sites/default/files/shadow-of-danger-highrespdf.pdf](http://www.foreffectivegov.org/sites/default/files/shadow-of-danger-highrespdf.pdf).
- <sup>12</sup> Union of Concerned Scientists, “Double Jeopardy in Houston: Acute and Chronic Chemical Exposures Pose Disproportionate Risks for Marginalized Communities,” October 2016. Available: <https://www.ucsusa.org/sites/default/files/attach/2016/10/ucs-double-jeopardy-in-houston-full-report-2016.pdf>.
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- <sup>16</sup> Ibid
- <sup>17</sup> Ibid
- <sup>18</sup> San Jacinto Elementary School: Race/Ethnicity, June 2021. Available: [https://www.greatschools.org/texas/deer-park/2022-San-Jacinto-Elementary-School/#Race\\_ethnicity](https://www.greatschools.org/texas/deer-park/2022-San-Jacinto-Elementary-School/#Race_ethnicity)
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- <sup>23</sup> U.S. EPA, “Health & Environmental Effects of Hazardous Air Pollutants,” June 2021. Available: <https://www.epa.gov/haps/health-and-environmental-effects-hazardous-air-pollutants#:~:text=These%20health%20effects%20can%20include,respriatory%20and%20other%20health%20problems>
- <sup>24</sup> Union of Concerned Scientists, “Post-Harvey, the Arkema Disaster Reveals Chemical Safety Risks Were Preventable,” October 2017. Available: <https://blog.ucsusa.org/charise-johnson/post-harvey-the-arkema-disaster-reveals-chemical-safety-risks-were-preventable>.

<sup>25</sup> Earthjustice, *A Disaster in the Making*, April 2018. Available: <https://earthjustice.org/features/toxic-catastrophes-texas-national-chemical-disaster-rule>

<sup>26</sup> Center for American Progress “New Survey Shows Improved Chemical Security Makes Millions Safer,” March 2, 2010. Available: <https://www.americanprogress.org/press/release/2010/03/02/15246/new-survey-shows-improved-chemical-security-makes-millions-safer/>.

<sup>27</sup> CSB, *Letter to EPA Administrator*, April 2019. Available: [https://www.csb.gov/assets/1/6/letter\\_to\\_epa\\_4.23.2019.pdf](https://www.csb.gov/assets/1/6/letter_to_epa_4.23.2019.pdf)

<sup>28</sup> Baltimore Sun, “Derailment brings home potential peril of toxic traffic,” January 16, 2005. Available: <https://www.baltimoresun.com/news/bs-xpm-2005-01-16-0501160014-story.html>

<sup>29</sup> Republic Report, “Gov. Whitman, Retired Generals Call on EPA to Protect Against Chemical Plant Disasters,” June 2021. Available: <https://www.republicreport.org/2021/gov-whitman-retired-generals-call-on-epa-to-protect-against-chemical-plant-disasters/>

<sup>30</sup> CSB, *Sierra Chemical Co. High Explosives Accident*, January 7, 1998. Available: [https://www.csb.gov/assets/1/20/csb\\_sierra.pdf?13774](https://www.csb.gov/assets/1/20/csb_sierra.pdf?13774)