

October 31, 2022

The Honorable Michael S. Regan
Environmental Protection Agency
1200 Pennsylvania Avenue NW
Washington, DC 20460

Re: Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act; Safer Communities by Chemical Accident Prevention (Docket Number EPA-HQ-OLEM-2022-0174)

Dear Administrator Regan:

Thank you for the opportunity to submit comments on the proposed rule “Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act” (proposed August 18, 2022). The Union of Concerned Scientists (UCS) is a national nonprofit science advocacy organization that represents over 500,000 members. The Center for Science and Democracy works to promote independent science, a responsive and transparent democracy, and evidence-based decision-making on issues that affect public health and safety. We also advocate in partnership with communities affected by chemical disasters and the Risk Management Plan (RMP) rule.

We are encouraged by the U.S. Environmental Protection Agency (EPA) proposal to strengthen the Risk Management Program and restore critical chemical disaster prevention measures. However, we are concerned by the Agency’s proposal to apply these measures to a small number of facilities, processes, and chemicals. We urge EPA to adopt the strongest possible rule that requires transitioning to safe technologies and alternatives, broad implementation of prevention measures, and public access to comprehensive RMP information that can help prevent harm to workers and the public. Below we describe specific recommendations.

Natural Hazards and Power Loss: EPA should require all RMP facilities to prepare for climate-driven extreme weather events and power loss

We applaud EPA’s decision to explicitly require facilities with Program 2 and Program 3 processes to assess natural hazards in hazard reviews and process hazard analyses. As highlighted in EPA’s draft rule, in 2021, UCS, Center for Progressive Reform, and Earthjustice published an analysis that found that roughly one-third of RMP facilities are in areas at risk of inland and coastal flooding, storm surge, or wildfires.¹ Earlier this year, the U.S. Government Accountability Office (GAO) published a report with similar findings, concluding that 31 percent of RMP facilities may be impacted by flooding, storm surge, wildfire, or sea level rise.² Climate-driven chemical disasters (“natech” incidents) are already happening with significant consequences. For example, out of 186 air emissions events reported to the Texas Commission on Environmental Quality between July 31 and September

7, 2017, nearly half (49 percent) were related to Hurricane Harvey.³ More than 1.4 million pounds of 37 RMP-regulated substances were emitted in Harvey-related incidents.⁴ Requiring RMP facilities to assess natural hazards is a necessary step to limiting unplanned air releases, explosions, fires, and other hazards, however we believe the provision should be strengthened.

We urge EPA to expand this provision to include Program 1 facilities. While facilities with Program 1 processes make up only three percent of total RMP facilities, these facilities have reported weather-related accidents between 2004 and 2020 and still face risks posed by the accelerating climate crisis, with the potential to cause compounding harm to workers, communities, and natural resources. EPA should require all facilities with RMP-regulated processes to assess natural hazards.

Furthermore, facilities that have identified a heightened risk from natural hazards should also be required to implement measures to minimize these risks, such as backup power. Following the Arkema disaster, the U.S. Chemical Safety and Hazard Investigation Board concluded that “facilities should try to apply a sufficiently conservative risk management approach when evaluating and mitigating potential extreme weather scenarios.”⁵ The European Commission Joint Research Centre also found that companies that implement risk reduction measures and design for natural hazards tend to fare better during extreme weather events.⁶ Assessment of natural hazards alone will not prevent natech incidents. For example, emergency plans submitted by the Arkema facility in Crosby, Texas in 2014 identified hurricanes and power loss as major hazards, but these plans failed to describe what the facility should do in either scenario.⁷

While we strongly support EPA’s decision to require RMP facilities to report declined recommendations in hazard evaluations, we believe there should be a baseline checklist of natural hazard mitigation measures that facilities located in areas at risk of flooding, storm surge, wildfire, and sea level rise should be required to implement within a reasonable timeframe. These should include backup power across all key processes (in addition to air monitors), installing leak detection systems, and repairing aging tanks and pipes.⁸ EPA could identify at-risk facilities using GAO’s analysis,⁹ for example, and the list of at-risk facilities should be updated periodically using the most recent climate hazards data.

Stationary Source Siting: EPA should account for potential cumulative exposures and health impacts, particularly in communities overburdened with multiple polluting facilities

While the proposal enhances chemical disaster prevention and response measures, the rule in its current standing fails to fully consider or address the cumulative impacts of the environmental hazards faced by fenceline communities located near RMP facilities. We support EPA’s proposal to require facilities to conduct siting evaluations, however, we believe this is a missed opportunity to incorporate a substantive assessment of cumulative impacts.

Cumulative impacts from pollution exposures and socioeconomic inequalities are stressors that exacerbate the health disparities that disadvantaged communities already endure due to co-located chemical facilities. While the proposal does not explicitly address cumulative impacts, EPA has expressed its intention to implement and advance the use of cumulative impacts assessments across the agency, as stated in a directive by the EPA Office of Research

and Development as well as the agency-wide Racial Equity Action Plan.¹⁰ Furthermore, EPA acknowledges in the proposed rule that “lack of sufficient distance between [RMP facilities] and neighboring residential areas was a significant factor in the severity of several chemical accidents in the United States...” Research by the Center for Effective Government found that an estimated 23 million U.S. residents—disproportionately low-income communities and communities of color—live within one mile of RMP facilities.¹¹ The report found that people living in poverty were 1.4 times more likely to live in fenceline zones than people not living in poverty, and people of color were 1.7 times more likely than White people to live in these areas.¹² Research has also shown that living near sources of pollution increases exposures in communities of color and low-income communities.¹³ Furthermore, there is a strong body of evidence that elevated exposure to environmental pollution is associated with enormous health burdens and higher mortality rates.¹⁴

Rather than rely on industry guidance to address stationary source siting, we urge EPA to incorporate more explicit requirements for identifying, evaluating, and addressing facility siting harms during the process hazard analysis. In particular, the proposed rule can be strengthened by providing guidance to facilities on comprehensively assessing cumulative impacts in siting evaluations and requiring facilities to implement measures to alleviate hazards to fenceline communities.

In addition to EPA’s commitment to protect public health, it is the responsibility of the government to actively address the long-standing inequities that Indigenous communities, communities of color, and low-income communities in the U.S. have endured due to toxic emissions. Addressing cumulative health impacts by following the best available science and data—including that which is relayed by people from impacted communities in their testimony, written comments, and community science—can reinforce and advance EPA’s commitment to protect overburdened communities.

Safer Technology and Alternatives Analysis (STAA): EPA should expand the scope of the Safer Technology and Alternatives Analysis

We are encouraged by EPA’s proposal to restore the Safer Technology and Alternatives Analysis (STAA) from the 2017 RMP amendments and to include STAA findings in hazard evaluations. However, this step forward is undermined by the Agency’s proposal to limit the scope of coverage to a small number of facilities – even fewer than were covered in the 2017 Chemical Disaster Rule. If EPA seeks to prevent chemical disasters, then prevention measures must be required and broadly applied.

STAA is an established industry best practice, and both the EPA and the Occupational Health Administration and Safety Administration have stated that “the first choice for managing chemical hazards and risks is the use of Inherently Safer Technology (IST) or Inherently Safer Design (ISD). IST and ISD are recognized approaches embraced by chemical process designers that are most effectively and powerfully applied at the process design stage. But they are increasingly applied by process operators to existing chemical processes.”¹⁵ For example, starting in 2010, Clorox shifted its process for making bleach at its production facilities from using toxic chlorine gas to diluting industrial bleach, thus eliminating the need for the transportation and storage of chlorine at these facilities.¹⁶

EPA’s proposal does not reflect the Agency’s own guidance. The proposed rule would exempt roughly 95 percent of RMP facilities from conducting an STAA, including those

facilities prone to releases. For example, at least 1,860 RMP-reportable accidents between 2004 and 2020 from Appendix A were at facilities that would not have been required to complete an STAA under the proposed rule. Furthermore, EPA's decision to narrow the scope of the STAA requirement to facilities with NAICS 324 and 325 processes within one mile of one another is arbitrary, relies on insufficient data, and is unnecessarily difficult to enforce. Evidence suggests that there is a five-year lag in RMP reporting,¹⁷ therefore, accident data between 2017 to 2020 is incomplete and should not be relied upon for establishing a threshold for a critical provision of this rulemaking. Furthermore, it is unclear how facilities will be able to determine whether they are within one mile of one another. Will this be based on the facility address or the end of the property? Rather than focus on a facility's proximity to another – which may have little bearing on the hazard of the processes and substances used at each facility – EPA should prioritize the facilities that pose the most significant hazards to workers and communities.

The costs of transitioning to safer alternatives are also not sufficiently weighed against the costs of a major incident. In the proposal, EPA states that, “the known costs of certain STAA changes range from less than \$1,000 to over \$100 million.” However, research indicates that safety improvements could avoid major incidents at California refineries, for example, that cost owners at least \$220 million, on average.¹⁸ This figure also does not include costs to society, such as human lives, economic stress, and health care and emergency service costs.

We urge EPA to require STAAs to be completed, with worker participation, for all RMP facilities, as has been recommended by the U.S. Chemical Safety and Hazard Investigation Board (CSB) numerous times – including during interagency review and CSB's comment on this proposal.¹⁹ Coupled with improved public access to RMPs (described below), this would provide industry, process safety experts, and the public with incredibly valuable data on the safer technologies and processes evaluated and implemented at each facility. Furthermore, EPA should, in the very least, require the most potentially dangerous facilities, including petroleum, coal, chemical, and pulp/paper manufacturing processes, as well as wastewater treatment facilities and agriculture/fertilizer plants to transition to inherently safer processes, where technically practicable. For example, if the Arkema facility in Crosby had been required to assess, identify, and implement safer technologies, the 2017 explosion may have been avoided.²⁰ Backup generators and storage vessels for volatile chemicals, which were not raised above possible flood levels, might have been relocated.²¹ The facility might have also assessed how to use materials to neutralize the on-site organic peroxides in case of emergencies.²² Under the current proposal, Arkema in Crosby will not be covered by the STAA requirement.

Root Cause Analysis and Third-Party Compliance Audits: EPA should strengthen prevention requirements such as third-party compliance audits and incident investigations

We support EPA's decision to restore third-party compliance audits after incidents and incident investigation root cause analysis requirements from the 2017 proposed amendments. However, we believe the rule can be strengthened by requiring audits after any single incident rather than two incidents within five years. EPA should not wait for multiple disasters to occur before third-party audits are triggered. For example, take the Westlake chemical company, which has four facilities near Lake Charles, Louisiana. These facilities

have a track record of incidents and violations, including nearly identical tank explosions at two separate facilities within five months of one another.²³

Further, while we support the restoration of the root cause analysis provision, a strong RMP rule cannot limit these analyses to “reportable harm” incidents. EPA’s final rule should expand the requirement to include near misses. In general, relying on incident data reported by facilities under 40 CFR 68.42 is insufficient to adequately protect public health and the environment. Despite the rule’s requirement to report accidents within six months, many facilities wait until the end of the five-year reporting period to do so.²⁴ This means that by the time EPA has been notified of an incident, it may have been too late to prevent a subsequent incident as a result of the same process failure. A more proactive approach should include EPA requiring facilities to conduct root cause analyses for near misses and reportable incidents and to make those analyses publicly available.

Employee Participation: EPA should ensure that workers are meaningfully included in disaster prevention and planning

EPA’s proposal expands worker participation in facility safety procedures by requiring facilities to consult with workers on implementing compliance audit and incident investigation recommendations, providing employees with methods to stop work under dangerous circumstances, and to anonymously report accidents or non-compliance to EPA. The rule could go further, however, by supporting meaningful collaboration of employees and their representatives with management to design, implement, and evaluate all phases of the Risk Management Program, including hazard assessment, Safer Technology and Alternatives Analysis, incident investigation, third-party compliance audits, Stop Work Authority, anti-discrimination measures, and emergency response. The final rule should also ensure that employees and their representatives at all RMP facilities (regardless of Program level) have common rights and authorities. All workers should be able to protect safety.

Workers also need access to mechanisms to anonymously report safety hazards and near-miss incidents to EPA with anti-retaliation protections, requiring immediate response by RMP facilities to present and imminent threats, including those related to extreme weather and other natural disaster risks. A public record of these reports is also needed to ensure timely maintenance or other corrective action is taken to prevent incidents.

Proposed Modifications and Amplifications to Emergency Response Requirements: EPA should require timely, multi-lingual community notifications

Communities at the fenceline of RMP facilities need and deserve protection from the toxic chemicals emitted from these facilities. While the proposed rule aims to expand protections for fenceline communities and first responders, we believe it could go further. EPA should require the use of timely, multi-lingual community notifications to protect non-English speaking individuals from exposure to dangerous spikes in air pollution from RMP facilities.

The proposed rule requires RMP facility owners and operators to develop procedures “for informing the public and the appropriate federal, state, and local emergency response agencies about accidental releases of RMP-regulated substances and ensure that a community notification system is in place to warn the public within the area threatened by a release.” The EPA is expecting that RMP facilities can utilize the community notification system of Federal Emergency Management Agency’s (FEMA) Integrated Public Alert & Warning

System (IPAWS), which can also alert systems like the Emergency Alert System and National Oceanic and Atmospheric Administration's Weather Radio.

While EPA states in the proposed rule that the Emergency Alert System “can support both English and Spanish,” the reality is that almost all federal emergency alerts issued by FEMA via the Emergency Alert System are sent out only in English.²⁵ There are documented circumstances where the failure to provide timely, multi-lingual alerts to community members facing extreme weather events led to deaths and other cases of harm to non-English speakers. For instance, during a 2013 tornado in Oklahoma,²⁶ a review by National Weather Service concluded that the drowning of a Guatemalan family was at least partially caused by the lack of Spanish-language communication.

Fires, explosions, spills, flooding, and other emergency scenarios occur regularly and frequently at RMP facilities and can result in large releases of air pollution that can adversely affect fenceline communities.²⁷ Furthermore, communities near industrial facilities may have a large number of Spanish speakers and other non-English language speakers.²⁸ If EPA fails to explicitly require multi-lingual alerts to communities when these large pollution releases occur, the burden of translating falls on community members, people who may not be trained in best practices for issuing these types of emergency notifications. EPA must explicitly require the use of timely, multi-lingual community notifications following an unplanned chemical release or other hazardous incident.

Information Availability: EPA should provide broad public online access to RMP facility information and risk management plans

We are grateful to EPA for acknowledging the importance of public access to hazardous facility information, and intention to expand access to RMP facility information and risk management plans. However, we strongly oppose EPA’s decision to limit access to RMP facility information to people who live within six miles of an RMP facility. This approach assumes that community members are aware that they live near an RMP facility, which many are not, and puts the onus on individuals to determine whether they live six miles from an RMP facility. A six-mile threshold also fails to factor in wind patterns that can spread air pollution to communities that live further than six miles away, as occurred after the 2019 International Terminals’ fire in Houston, Texas.²⁹ Finally, people who work and attend school within the six-mile threshold, but live outside of it, should be afforded the same right to this information.

Rather than rely on a convoluted approach that puts a significant burden on individuals, EPA should make this information available on a public, online, and multilingual webtool. To ensure that workers, first responders, and the public can effectively use this information, EPA must provide access to all non-OCA information no later than December 2023 and update this information monthly.

Additional Considerations: EPA should expand coverage of the program, including the list of RMP-regulated substances, and require real-time fenceline monitoring

A final RMP rule should expand coverage to more facilities, especially those in disproportionately impacted or overburdened areas, and in areas at risk of natech incidents. Facilities that are already subject to RMP requirements for one or more processes or chemicals should be covered for all processes across the facility to avoid cascading disasters

like the incident at the Arkema chemical plant in Crosby and the fatal explosions in West, Texas. EPA should redefine “stationary source” so it is clear that an entire facility is required to comply with RMP requirements if any part is covered.

Chemical incident data issued by CSB in May 2022 revealed that between April 2020 to May 2022, facilities with hazardous substances reported over 153 incidents, roughly half of which were at RMP facilities.³⁰ Other incidents occurred at wells and pipelines or at facilities housing chemicals that are not on the hazardous substances list or are not present in amounts that trigger RMP coverage. For example, the Biolab chlorine production facility in Westlake, Louisiana which was damaged in the wake of Hurricane Laura in 2020 caused the release of chlorine gas and, in the long term, contributed to a nationwide chlorine shortage.³¹ To prevent incidents like this from occurring, EPA should expand the universe of hazardous chemicals and lower the thresholds that trigger RMP requirements, including (and especially) flammable, volatile, and other reactive chemicals on EPA’s “List of Lists,” a consolidated roster of hazardous chemicals subject to reporting requirements of the Emergency Planning and Community Right To-Know Act; the Comprehensive Environmental Response, Compensation and Liability Act; and Section 112(r) of the Clean Air Act.

EPA should update its list of regulated substances under the RMP rule to include the fertilizer, ammonium nitrate. In 2013, at the West Fertilizer Company facility in Texas, an explosion of ammonium nitrate—which is not an RMP-regulated substance—killed 15 people and caused more than 260 injuries.³² That facility was covered in part (due to another chemical process), but not required to fully comply with the RMP. This incident prompted CSB to recommend that EPA regulate ammonium nitrate under the RMP. Yet EPA has so far taken no action and more incidents have occurred. In January 2022, nearly 600 tons of ammonium nitrate at the Weaver Fertilizer plant in Winston-Salem, North Carolina caught fire and burned for four days, causing the evacuation of nearly 6,000 residents.³³ These incidents underscore how imperative it is that EPA uses this rulemaking process to ensure that a facility covered in part must fully satisfy all requirements of the RMP rule.

Furthermore, EPA must require RMP facilities to install real-time fenceline monitors to detect releases and provide the public with information about the emission of toxic chemicals. Fenceline monitoring is a critical tool for detecting unplanned releases, monitoring emissions, and helping prevent catastrophic incidents. In the proposed rule, EPA readily acknowledges that some facility owners thwart requirements for air pollution monitoring by “disabling equipment designed to monitor and detect chemical releases” during extreme weather events. Furthermore, community members have reported hazardous releases at night, without warning.³⁴ This is a concerning situation that EPA is proposing to address by requiring air pollution control and monitoring equipment to have standby or backup power. This is a good step, but only fixes a specific problem that can occur with existing fenceline monitors.

We urge EPA to require all RMP facilities to carry out real-time fenceline monitoring and provide this information to the public and first responders. EPA should also develop a deliberate process for siting of air monitors that includes input from fenceline communities to ensure that monitors are in areas that most accurately detect fugitive and incident emissions that communities may be exposed to.

A UCS, Rice University, and Texas Environmental Justice and Advocacy Services study of air pollution monitoring following the 2019 Terminals Company chemical fire in Houston showed that fenceline communities face high air pollution levels that can harm human health during emergency scenarios and that current federal, state, and local air monitoring networks are inadequate in providing a real-time picture of where spikes are occurring.³⁵ The proposed rule does not address this gap in fenceline monitoring and instead relies on voluntary measures, like requesting that RMP facility owners further describe their process area detectors and perimeter monitor technology in an open text field of their risk management plan. Access to real-time fenceline monitoring data may be one of the most powerful tools that affected community members can utilize because it allows residents to understand the risks they face from industrial air pollution and make decisions that can safeguard their health. By failing to require RMP facilities to collect these data and make them available to the public, EPA is leaving community members and first responders in the dark about the potential airborne toxins to which they are exposed.

Other: EPA must strengthen compliance and corrective action

Finally, we urge EPA to ensure compliance through the final rule and incorporation of RMP into the permitting process through Title V of the Clean Air Act. Implementing Title V permit requirements would provide greater transparency and opportunity for public input and a stronger incentive for facilities to comply with permits. EPA should also improve corrective action and require additional reporting and compliance measures for facilities with poor safety records.

Conclusion

After years of progress and backsteps, we urge EPA to use this opportunity to strengthen the Risk Management Program and ensure that catastrophic chemical disasters are prevented, particularly in the face of the worsening climate crisis. While workers and the public wait for stronger protections, RMP facilities continue to have fires, explosions, and unplanned releases that have a devastating toll on communities. This is a matter of environmental justice for the people who are disproportionately harmed by toxic releases, in addition to other environmental and social stressors. The EPA must act now by putting in place the strongest protections possible to prevent chemical disasters and ensure the safety and health of workers, first responders, communities, and the environment.

Sincerely,

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¹ Flores, David, C. Kalman, M. Mabson, D. Minovi. Preventing Double Disasters. 2021. Union of Concerned Scientists, July 6, <https://www.ucsusa.org/sites/default/files/2021-07/preventing-double-disasters%20FINAL.pdf>.

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