

**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

Accidental Release Prevention )  
Requirements: Risk Management ) Docket No. EPA-HQ-OLEM-2022-0174  
Programs Under the Clean Air Act; ) *Submitted via Regulations.gov and email*  
Safer Communities by Chemical ) *October 31, 2022*  
Accident Prevention; Proposed Rule, 87 )  
Fed. Reg. 53,556 (Aug. 31, 2022). )

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**COMMENTS OF TEXAS ENVIRONMENTAL JUSTICE ADVOCACY SERVICES,  
COMMUNITY IN-POWER & DEVELOPMENT ASSOCIATION, COALITION FOR A  
SAFE ENVIRONMENT, AIR ALLIANCE HOUSTON, CALIFORNIA COMMUNITIES  
AGAINST TOXICS, CLEAN AIR COUNCIL, LOUISIANA BUCKET BRIGADE,  
UNION OF CONCERNED SCIENTISTS, UTAH PHYSICIANS FOR A HEALTHY  
ENVIRONMENT, SIERRA CLUB AND EARTHJUSTICE**

**INTRODUCTION AND SUMMARY**

The undersigned Commenters again call on EPA to end the preventable cycle of chemical fires, explosions, and hazardous chemical releases at U.S. industrial facilities. No massive chemical catastrophe should ever occur. EPA must strengthen and finalize the proposal to issue a strong new chemical disaster prevention rule that communities and workers can finally count on to protect their lives and their families.<sup>1</sup> Fenceline communities, environmental and environmental justice groups, and scientists submit these comments to urge EPA to follow the science and the most current safety data, and to apply lessons learned in recent years on ways to prevent chemical disasters and save lives.

EPA’s existing rules for hazardous chemical facilities have failed over and over again to prevent serious harm. The record shows an urgent need for stronger rules in the Clean Air Act Accidental Release Prevention or Risk Management Program (“RMP”). Currently, the hazards and risk of a massive catastrophe due to an industrial chemical release are huge in the U.S.: 177 million people live in worst-case scenario zones, with disproportionate exposure for workers, communities of color, and low-income people.

Over 3,400 chemical disasters have occurred under the existing rules since 2004, and 2,436 of those caused reported harm. A fatal or life-threatening incident occurs on average every two and a half days. EPA is making the right decision to end the prior Administration’s dangerous backsliding on industrial safety.

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<sup>1</sup> Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act; Safer Communities by Chemical Accident Prevention; Proposed Rule, 87 Fed. Reg. 53,556 (Aug. 31, 2022).

EPA has proposed new and expanded safety measures to protect workers, first-responders, and fenceline communities. The agency now has an important responsibility to consider comments and recognize the need to further strengthen its proposal as EPA takes long-needed final action. This is the moment for meaningful reform to save another generation of communities from going through the cycle of disasters, toxic exposure, shelter-in-place, evacuation, and worse that has happened for the last two decades under this program.

EPA has robust legal authority and a responsibility to prevent chemical disasters under section 112(r)(1) and (r)(7)(A)-(B) and must finally demonstrate true leadership by fully employing this authority to ensure prevention and harm minimization as the Act requires: “to the greatest extent practicable.” 42 U.S.C. § 7412(r)(7)(A), (B). The proposal must be improved and strengthened to protect health and safety, to fulfill EPA’s obligation to safeguard communities from harm, and to fulfill this Administration’s promises to advance environmental justice and address climate change. The Act also requires EPA to respond to CSB recommendations and the agency should ensure the rule includes all key components the CSB has recommended as EPA cannot provide any reasoned justification for not implementing these. *Id.* § 7412(r)(6)(I).

Commenters support EPA’s effort to issue necessary, new safeguards. It is essential that EPA finalize proposed updates requiring facilities to assess natural hazards, evaluate common-sense measures like back-up power to avoid releases during power loss, assess safer technologies at some of the most hazardous facilities (Safer Technologies Alternatives Analysis or “STAA”), and report on what they implement or on a justification regarding implementation. The proposal for “technology transfer” or solutions data sharing is also an important step forward to advance prevention. The compliance audit, incident investigation, codes updates, and proposed amendment of the definition of stationary source will also strengthen safety. The final rule must include the proposed worker participation requirements in safety planning and disaster prevention and provide community notification of toxic releases. These necessary disaster prevention requirements will advance environmental justice by identifying safer ways to operate and will likely lead to eliminating and reducing hazards that threaten the lives of fenceline communities and workers.

Climate and natural disaster planning and mitigation measures are especially critical to ensure facilities do all they can to prevent the double impact from chemical disasters for communities in hurricane, flooding, extreme weather, and earthquake prone areas. The “double threat” from “NaTech” incidents looms large for communities near RMP facilities, especially for communities near the one-third of all facilities (3,856) in known high climate risk areas.<sup>2</sup> This increased risk shows the need for specific NaTech or natural disaster assessment and planning requirements, including implementation of safer technologies alternatives, like hazard

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<sup>2</sup> 87 Fed. Reg. at 53,568 (discussing “NaTech” or “natural hazards triggering technological accidents”); see also Center for Progressive Reform et al., *Preventing “Double Disasters”: How the U.S. Environmental Protection Agency can protect the public from hazardous chemical releases worsened by natural disasters* at 6 (July 2021), <http://progressivereform.org/our-work/energy-environment/preventing-double-disasters/> (“UCS et al., *Preventing “Double Disasters”*”).

elimination or tank or piping redesign, vapor recovery systems, safer and more orderly shutdown/startup procedures, and back-up power. Due to increased risk of disasters, the rule must also include strong worker involvement, community notification, and fence line monitoring requirements, and cover more RMP chemicals.

To demonstrate that EPA is prioritizing the safety of fence line communities and workers, the agency also must expand this rule beyond what it has proposed and issue the strongest protections possible from industrial chemical disasters. In addition to finalizing the essential new safeguards, EPA should recognize the need to make the following modifications to the proposal based on strong evidence in the record and to ensure prevention and mitigation of chemical disasters “to the greatest extent practicable” as the law directs.

- **Requiring safer technologies is an essential prevention measure.** EPA should expand the vital STAA requirements to cover more facilities. This is the most critical prevention measure in the proposed rule and the one that is guaranteed to fulfill the statutory objective. A chemical or hazard that is not present cannot leak or catch on fire. Shifting to inherently safer technologies, chemicals, and processes, including eliminating hazards, provides the most reliable protection from a chemical disaster. EPA must ensure it applies this provision as broadly as possible to as many communities as possible. The agency has failed to justify excluding any refineries, chemical manufacturing plants, pulp/paper mills, wastewater treatment, agricultural chemical or fertilizer plants, or the other thousands of highly hazardous facilities where safer technologies are available.
- **Worker participation provisions will protect workers and communities.** EPA should expand the essential employee participation requirements to cover all program levels, to provide for anonymous worker reporting directly to EPA for prompt agency oversight and action to assure facility response, and to require adequate worker training on and protection from retaliation for efforts to assure compliance with RMP requirements.
- **Third-party compliance audits strengthen accountability and will help prevent incidents and future harm.** EPA should expand the compliance audit provisions to require regular, independent safety audits by all RMP facilities, instead of waiting for two incidents to happen first.
- **Incident investigation is critical to inform planning and future incident prevention.** EPA should expand the incident investigation provisions to provide for investigation of near misses and of incidents that lead to decommissioning or destruction of a process.
- **Ensuring practicable implementation is essential because industry has failed to make common-sense safety decisions on the scale needed to save lives.** EPA should require implementation of *all practicable* safer technologies, processes and practices, NaTech or natural/external hazard, power loss, and stationary source siting mitigation, compliance auditor and incident investigation recommendations, and recognized and generally accepted good engineering

practices (RAGAGEP). Failing to require this would fail to assure prevention, as the statute directs, “to the greatest extent practicable.”

- **Emergency response improvements will help minimize consequences from incidents.** EPA should expand the emergency response planning provisions to cover at least all Program 2 and Program 3 facilities, ensure community alerts are available in all relevant local languages, and not allow any facility to delay performing a field exercise.
- **EPA should champion community information as a fundamental environmental justice goal.** Most importantly, EPA should provide broad online access to RMP data directly on its website as the highest priority. The community information access provisions proposed include unacceptable barriers. The rule must ensure access to information for all local civic and community organizations and leaders within the worst-case scenario zone more quickly and in all relevant local languages, about RMP facilities *before* any incident occurs.
- **Expanding coverage will save more lives.** EPA should expand the definition of “stationary source” to assure coverage in full of any facility with an RMP process, rather than piecemealing coverage of the RMP to cover only part of that facility.
- **Built-in compliance design will bolster safety across the universe of RMP facilities.** EPA should boost compliance and increase accountability by adding more frequent and more detailed reporting requirements, requiring more monitoring, and assuring full implementation of the RMP for the 1,800 hazardous air facilities regulated under this program and Title V of the Clean Air Act. EPA should revise 40 C.F.R. § 68.215 to make clear that air permits must incorporate the RMP rules and assure compliance with all section 112(r) requirements. Commenters also call on EPA to speed up compliance for all requirements that have a 3-year or longer deadline to satisfy the directive to require compliance “as expeditiously as practicable,” and ensure all new safety measures are implemented without delay.

**Commenters strongly support EPA’s plan to create an RMP database on the agency’s publicly accessible website.** Increased access to all RMP data to the greatest extent allowed under law is critical for community safety. A public database would better protect community access to information than EPA’s proposed rule provision. EPA should remove any barriers to communities’ access to this information. Creating this database by the end of 2023, and seeking public input on accessibility, is a critically important priority for Commenters. EPA should also take public comment on ways to broaden access to off-site consequence analysis (OCA) data for people who live in worst-case scenario RMP zones.

**Commenters support EPA’s recognition of the need to review and update the 112(r) hazardous substances list and to implement fence-line monitoring under the RMP.** Commenters call on EPA to move swiftly to take these important regulatory actions by no later than the end of 2023. In particular, scientific evidence and CSB recommendations show the need for EPA to expand protection for more people and more communities from chemical

disasters by expanding the program’s coverage to more chemicals and hazardous facilities. The statute’s requirement for “detection” to the greatest extent practicable directs EPA to require fence-line monitoring and leak detection to prevent and reduce harm at all RMP facilities where earlier detection methods are available, and where improved monitoring and alerts are likely to protect public health and safety.

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**DETAILED COMMENTS**

**EPA MUST APPLY ITS FULL LEGAL AUTHORITY AND SATISFY ITS STATUTORY OBLIGATION TO PREVENT CHEMICAL DISASTERS**

**1. EPA MUST ISSUE A STRONGER RULE TO PREVENT AND MITIGATE DISASTERS “TO THE GREATEST EXTENT PRACTICABLE.”**

Section 112(r) of the Clean Air Act, titled “Prevention of accidental releases,” requires EPA “to prevent the accidental release and to minimize the consequences of any such release of any substance listed pursuant to paragraph (3) or any other extremely hazardous substance.” 42 U.S.C. § 7412(r)(1). EPA must regulate facilities that use, store, or manage extremely dangerous chemical substances to prevent “accidental releases” that can cause catastrophic harm to human health and the environment. The “objective” of the RMP program is “to prevent the accidental release and to minimize the consequences of any such release of any substance listed pursuant to paragraph (3) or any other extremely hazardous substance.” 42 U.S.C. § 7412(r)(1).

In order to prevent accidental releases of regulated substances,” section 112(r)(7)(A) directs and authorizes EPA to “promulgate release prevention, detection, and correction requirements which may include monitoring, record-keeping, reporting, training, vapor recovery, secondary containment, and other design, equipment, work practice, and operational requirements.”<sup>3</sup> The Act further requires EPA to promulgate regulations that provide, “to the greatest extent practicable, for the prevention and detection of accidental releases . . . and for response to such releases.”<sup>4</sup> EPA’s RMP regulations must have an effective date “assuring compliance as expeditiously as practicable.”<sup>5</sup> Section 7412(r)(7) also authorizes EPA “to

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<sup>3</sup> 42 U.S.C. § 7412(r)(7)(A).

<sup>4</sup> 42 U.S.C. § 7412(r)(7)(B).

<sup>5</sup> *Id.*; see also *id.* § 7412(r)(7)(B) (requiring EPA to assure regulations are applicable to a stationary source no later than 3 years after the date of promulgation, or 3 years after the date on which a regulated substance present at the source is more than threshold amounts).

substantively amend the programmatic requirements of the Chemical Disaster Rule. . . subject to arbitrary and capricious review.”<sup>6</sup>

The Act also requires EPA to respond in a timely and detailed manner to the recommendations of the U.S. Chemical Safety Board.<sup>7</sup> In particular, the statute directs:

Whenever the Board submits a recommendation with respect to accidental releases to the Administrator, the Administrator shall respond to each such recommendation formally and in writing not later than 180 days after receipt thereof. The response to the Board’s recommendation by the Administrator shall indicate whether the Administrator will—

- (i) initiate a rulemaking or issue such orders as are necessary to implement the recommendation in full or in part, pursuant to any timetable contained in the recommendation;
- (ii) decline to initiate a rulemaking or issue orders as recommended.

Any determination by the Administrator not to implement a recommendation of the Board or to implement a recommendation only in part, including any variation from the schedule contained in the recommendation, shall be accompanied by a statement from the Administrator setting forth the reasons for such determination.<sup>8</sup>

Congress enacted section 112(r) “in response to a number of catastrophic chemical accidents occurring worldwide that had resulted in public and worker fatalities and injuries, environmental damage, and other community impacts.”<sup>9</sup> Congress aimed to prevent the type of “catastrophic failure” and “tragedy, of unimaginable dimension” that occurred when a chemical facility released a cloud of methyl isocyanate into Bhopal, India in 1984, killing and injuring thousands of people.<sup>10</sup> Specifically, the purpose of section 7412(r) “is to prevent accidents like that which occurred at Bhopal and require preparation to mitigate the effects of those accidents that do occur.”<sup>11</sup>

The D.C. Circuit has emphasized that the central objective of section 112(r) is *prevention* of chemical disasters: “Section 7412(r)(7) is a comprehensive accident prevention regime affording EPA broad discretion as to regulatory tools, albeit with multiple requirements.”<sup>12</sup> The Act’s “plain text makes clear that Congress is seeking meaningful, prompt *action* by EPA to promote accident prevention.”<sup>13</sup> To lawfully regulate under this provision, EPA must ensure that it considers and advances section 7412(r)(7)’s statutory objectives as the Act requires. As summarized by the D.C. Circuit, the objectives of this program are to: (1) “prevent accidental

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<sup>6</sup> *Air All. Houston*, 906 F.3d at 1066.

<sup>7</sup> *Id.* § 7412(r)(6)(I).

<sup>8</sup> 42 U.S.C. § 7412(r)(6)(I).

<sup>9</sup> 42 U.S.C. § 7412(r); 81 Fed. Reg. 13,638, 13,645 (Mar. 14, 2016).

<sup>10</sup> S. Rep. No. 101-228, at 134 (1989), *reprinted in* 1990 U.S.C.C.A.N. 3385, 3519 (also citing accidental release at Union Carbide in West Virginia that sent hundreds of workers and residents to seek medical care).

<sup>11</sup> 136 Cong. Rec. S16,985, S16,926-27 (Oct. 27, 1990), 1990 WL 164490.

<sup>12</sup> *Air All. Houston v. EPA*, 906 F.3d 1049, 1063.

<sup>13</sup> *Id.* at 1064.

releases,” (2) “protect human health and the environment,” and (3) “include procedures and measures for emergency response after an accidental release.”<sup>14</sup>

In this rulemaking, the Act requires EPA to issue not just “reasonable” prevention measures, but measures that prevent disasters “to the greatest extent practicable.” 42 U.S.C. § 7412(r)(7)(B). Unlike other Clean Air Act provisions that allow certain levels of pollution, the RMP is supposed to prevent *all* highly hazardous releases due to the death, injury, and harm to public health and welfare that they cause. Additionally, the Act does not require EPA to justify prevention measures based on incidents or tailor rules solely to facilities or sectors with prior incidents. Rather, it requires EPA to implement the necessary measures *before* deadly incidents occur. It does not require EPA to prove that benefits will outweigh the costs, although there is strong evidence demonstrating that.

Commenters call on EPA to exercise its robust legal authority and follow the statute fully. EPA has not addressed nor demonstrated how its proposal satisfies section 7412(r)(7)(B). EPA’s statement that its “reasonable” proposed rule “would be more protective, and thus provide for release prevention, detection, and response ‘to the greatest extent practicable’” is insufficient to satisfy the Act. 87 Fed. Reg. at 53,566. As discussed below – EPA must do more than simply find and show its proposal is reasonable (which it is), it must consider and demonstrate what action is needed to assure protection “to the greatest extent practicable,” and EPA has failed to complete that essential step. *Id.* By attempting to add “economic factors” into the definition of “practicability,” EPA has improperly attempted to count cost multiple times in its analysis. Regardless, EPA has failed to find or show anywhere in the record that, even considering such factors, what it has proposed achieves prevention, detection and response “to the greatest extent practicable.”

EPA may not misinterpret the statute as allowing it to use cost or burden as a basis for not issuing the strongest possible protections, when the statute is clear that EPA must achieve protection “to the greatest extent practicable,” as further discussed in each section below. EPA has failed to make or support a finding that the proposed rule would satisfy “the greatest extent practicable” test, that is plainly required by the law, and must strengthen the rule in order to satisfy the Act, as further discussed below.

## **2. EPA HAS PROVIDED REASONED EXPLANATIONS FOR CHANGING COURSE TO STRENGTHEN PROTECTION.**

In view of the statutory objectives EPA must fulfill, the Risk Management Program has denied adequate protection to communities for years. Although communities, workers, and health experts called for EPA to strengthen the RMP rules, first issued in 1990, EPA did not review or strengthen these until the very end of the Obama-Biden Administration.<sup>15</sup> EPA recognized the need to strengthen the RMP rules in 2017 due to thousands of incidents over the

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<sup>14</sup> *Id.* (quoting § 7412(r)(1), (r)(7)(A), (r)(7)(B)).

<sup>15</sup> EPA Final Rule, 2017 Amendments, 82 Fed. Reg. 4594 (Jan. 13, 2017) (“2017 Rule” or “Chemical Disaster Rule”).



prior decade.<sup>16</sup> The 2017 rule included some necessary safeguards but failed to include others needed.

The 2017 rule was never implemented because the Trump-Pence EPA delayed its implementation. As a result of the prior administration's shocking bait-and-switch on community safety,<sup>17</sup> fenceline communities spent years litigating to reinstate protections.<sup>18</sup> Ultimately, the D.C. Circuit held that delay was illegal, stating that EPA had made a "mockery" of the Clean Air Act, and the court expedited its mandate to implement these "life-saving protections."<sup>19</sup>

But the Trump EPA rolled back the rule in 2019, rescinding all prevention measures in the 2017 rule and delaying and weakening emergency response requirements.<sup>20</sup> The 2019 rollback of the 2017 rule was just as illegal as the D.C. Circuit found EPA's delay rule to be.<sup>21</sup> A judicial challenge to the 2019 rule is pending, filed by 13 fenceline community, environmental, environmental justice, and scientist organizations – and the United Steelworkers and 18 state and local government petitioners have filed parallel challenges.<sup>22</sup>

Now, among other important actions, EPA proposes amendments to restore in part and modify in part previously issued disaster prevention requirements that the agency rescinded in 2019. EPA appropriately acknowledges this change and satisfies the legal test for changing course from the prior decision not to strengthen these protections.<sup>23</sup>

To amend a rule or policy, the amendment must be permissible under the relevant statute, and the agency must "provide [a] reasoned explanation for its action."<sup>24</sup> As the D.C. Circuit recognized in vacating the Delay Rule, to change course "EPA need not show that 'the reasons for the new policy are *better* than the reasons for the old one.'"<sup>25</sup> A "reasoned explanation"<sup>26</sup> for amending a rule includes that an agency "reasonably believe[s] [the amended rule] would be

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<sup>16</sup> Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, 82 Fed. Reg. 4594 (Jan. 13, 2017) ("Chemical Disaster Rule").

<sup>17</sup> The only 2017 amendments that did survive – the requirements for annual coordination with first-responders, public meetings after an incident, emergency response exercises – while positive and necessary steps, do not ensure any prevention of disasters. Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, 84 Fed. Reg. 69,834 (Dec. 19, 2019) ("2019 Rollback Rule"). EPA also removed a deadline for emergency field exercises that made that provision basically meaningless as it is not enforceable and there is no incentive to comply. *Id.*

<sup>18</sup> Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act; Further Delay of Effective Date, 82 Fed. Reg. 27,133 (June 14, 2017) ("Delay Rule").

<sup>19</sup> *Air All. Houston et al. v. EPA*, 906 F.3d 1049, 1064-66 (D.C. Cir. 2018).

<sup>20</sup> 2019 Rollback Rule, 84 Fed. Reg. 69,834 (Dec. 19, 2019).

<sup>21</sup> *See, e.g., AAH et al. Reconsideration Petition* (2020) (attached).

<sup>22</sup> *See Air All. Houston et al. v. EPA* (D.C. Cir. Nos. 19-1260 and consolidated cases); *see also* <https://earthjustice.org/news/press/2019/trumps-epa-revoked-chemical-disaster-prevention-rules-now-groups-are-suing>.

<sup>23</sup> The later comments discuss why EPA should further strengthen this action, due in part to its failure to justify why the proposed rule here is weaker, in part, than the 2017 Rule.

<sup>24</sup> *Nat'l Ass'n of Home Builders v. EPA*, 682 F.3d 1032, 1038 (D.C. Cir. 2012) (quoting *F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009)).

<sup>25</sup> *Air All. Houston v. EPA*, 906 F.3d 1049 (citing *Fox*, 556 U.S. at 515-16).

<sup>26</sup> *Fox*, 556 U.S. at 515.

more reliable, more effective, and safer than the original rule”<sup>27</sup> and that there has been a change in administration.<sup>28</sup> If the “new policy rests upon factual findings that contradict those which underlay its prior policy, it must provide ‘a reasoned explanation . . . for disregarding facts and circumstances that underlay or were engendered by the prior policy.’”<sup>29</sup> EPA has provided “reasoned explanation[s]” for changing course and strengthening the RMP rule.

In particular as EPA recognizes, its 2019 rescission rationales were based on flawed analysis and incomplete data. Current data show that the agency’s prior “compliance-only” approach – of relying solely on the existing rules – has failed to prevent chemical disasters. 87 Fed. Reg. at 53,565-66. The proposed rule’s approach will more effectively prevent disasters and keep communities safe than leaving the status quo in place.

EPA correctly recognizes that it must improve the RMP rules because under the existing program “major accidents continue to occur.” 87 Fed. Reg. at 53,566.<sup>30</sup> These incidents “impose significant social costs annually.” Draft RIA at 15. Any one incident involving hazardous chemicals would be compelling evidence showing the need for stronger rules because this is a program where no releases are ever supposed to occur. And the evidence shows 3,425 RMP incidents from 2004-2020. EPA Technical Background Document at 2-3 (Apr. 2022) (“TBD”).<sup>31</sup> An extraordinary number of harmful chemical incidents still occur under EPA’s existing RMP rules – 2,436 from 2004-2020.<sup>32</sup> For the most recent decade for which data should be complete (2007-16), there are 2,228 incidents total – an average of 222 per year, and 156 reportable harm incidents per year, on average.<sup>33</sup> Commenters have provided maps showing the distribution of these incidents, and the concentration in particular areas.<sup>34</sup>

Under the current rules, chemical disasters occur on average every two and a half days, causing fatalities and injuries, and costing more than \$477 million yearly.<sup>35</sup> The most recent decade’s worth of incidents shows the need for stronger preventative regulations. During 2011-2020, EPA has already received reports of over 1,175 harmful incidents – on average 117 per

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<sup>27</sup> *Nat’l Ass’n of Home Builders*, 682 F.3d at 1039.

<sup>28</sup> *See Nat’l Ass’n of Home Builders*, 682 F.3d 1032 at 1043; *see Chevron, U.S.A., Inc. v. NRDC*, 467 U.S. 837, 865 (1984) (“[A]n agency to which Congress has delegated policy-making responsibilities may, within the limits of that delegation, properly rely upon the incumbent Administration’s views of wise policy to inform its judgments.”).

<sup>29</sup> *Air All. Houston v. EPA*, 906 F.3d at 1066.

<sup>30</sup> EPA, Regulatory Impact Analysis, SCCAP Proposed Rule at 15 (Apr. 19, 2022) (“Draft RIA”), EPA-HQ-OLEM-2022-0174-0093 (“serious chemical releases from RMP-regulated processes have continued” under the existing rules).

<sup>31</sup> EPA-HQ-OLEM-2022-0174-0066.

<sup>32</sup> Incident data after 2016 in the database is incomplete, as EPA admits, due to delayed incident reporting. *See, e.g.*, 87 Fed. Reg. at 53,592 (citing at least 6.7% delayed reporting of incidents from 2004 to 2020).

<sup>33</sup> *See* EPA Tech. Background Doc. Appendix A (filtered for the years noted); *see also* Draft RIA at 15.

<sup>34</sup> *See* Map of Reportable Harm Incidents 2004-2020 (created by Robyn Winz, Earthjustice); Map of Deaths-Injuries and Evacuations – by State 2004-2020 (created by Robyn Winz, Earthjustice) (all are attached).

<sup>35</sup> Draft RIA at 9-10.

year – and reports from these years are not likely to be complete until 2025.<sup>36</sup> For a program that is supposed to *prevent* highly hazardous releases, these are extraordinarily high numbers. These problems illustrate that the rules alone are insufficient to avoid harm and there is a strong need for more robust prevention and emergency response requirements.

Further, EPA correctly finds that its prior analysis regarding incident trends was flawed because it did not properly account for the need to prevent “low-probability, high-consequence” events, including a Bhopal-like catastrophe. That missed the important objective of saving lives, preventing injury and toxic exposure from extreme incidents like the 2019 TPC Group explosion and fire in Port Neches, Texas,<sup>37</sup> and even worse disasters narrowly averted at the Torrance, California refinery, the Husky Refinery in Wisconsin, and the Philadelphia Energy Solutions fire. 87 Fed. Reg. at 53,565.

It was a problem that the agency’s 2019 decision failed to acknowledge that relying on enforcement alone often results in insufficient improvements that fail to promptly resolve the problem of chemical disasters or to prevent a catastrophe.<sup>38</sup> The prior decision failed to acknowledge the “significant transaction costs, delays, and uncertainty of obtaining necessary prevention improvements” in enforcement actions. 87 Fed. Reg. at 53,565. As one example, it took *six years* for EPA to achieve a consent decree resolving violations at the Shell Anacortes refinery that occurred in 2015 and sickened hundreds of people.<sup>39</sup> The consent decree and final order entered in that case provides no evidence that it will prevent a similar future release.<sup>40</sup> In

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<sup>36</sup> May 2021 EPA RMP (Non-OCA) Database Tbl6Accidents (with duplicates filtered out, no-human impact incidents filtered out, and filtered to show only incidents causing direct harm to people or property between 2011-2020).

<sup>37</sup> CSB, Fire and Explosions at Philadelphia Energy Solutions Refinery Hydrofluoric Acid Alkylation Unit (June 21, 2019), NO. 2019-04-I-PA (published Oct. 11, 2022), <https://www.csb.gov/philadelphia-energy-solutions-pes-refinery-fire-and-explosions/>; CSB, Husky Refinery Factual Investigation Update (Dec. 2018), [https://www.csb.gov/assets/1/20/husky\\_factual\\_update\\_-\\_2.pdf?16594](https://www.csb.gov/assets/1/20/husky_factual_update_-_2.pdf?16594); CSB, Husky Refinery Explosion and Fire on Apr. 26, 2018 Factual Investigation Update (Aug. 2018), [https://www.csb.gov/assets/1/6/husky\\_factual\\_update.pdf?16317](https://www.csb.gov/assets/1/6/husky_factual_update.pdf?16317); CSB, Final Report on ExxonMobil Torrance Refinery Fire and Explosion on Feb. 18, 2015 (May 3, 2017), <https://www.csb.gov/exxonmobil-refinery-explosion/>.

<sup>38</sup> EPA’s website showing allegedly recent RMP enforcement actions shows penalties issued three to six years after the incident. *See, e.g.*, Harcos Chemicals & MGP Ingredients (May 2020 order addressing an Oct. 21, 2016 release of chlorine gas causing shelter-in place, evaluation and 140 people injured seeking medial attention), <https://www.justice.gov/usao-ks/pr/two-kansas-companies-fined-1-million-each-atchison-chlorine-gas-case>; Torrance Refinery settlement (Jan. 2020 settlement agreement, five years after the 2015 refinery explosion and fire and near miss for a hydrofluoric acid release), <https://www.epa.gov/newsreleases/us-epa-settlement-southern-california-refinery-improves-chemical-safety-torrance>; HollyFrontier, El Dorado Kansas (2020 enforcement decree, addressing among other things, Sept. 2017 catastrophic release of naphtha), <https://www.epa.gov/newsreleases/epa-and-state-kansas-reach-agreement-hollyfrontier-alleged-clean-air-act-violations-its>.

<sup>39</sup> EPA penalizes Shell for Anacortes refinery release (Feb. 10, 2021), <https://www.epa.gov/newsreleases/epa-penalizes-shell-anacortes-refinery-release>.

<sup>40</sup> *See*

[https://yosemite.epa.gov/OA/RHC/EPAAdmin.nsf/Filings/FA1104AE9832597F8525864E006E04DA/\\$File/Equilon%20Shell%20PSR\\_CAF0\\_Step2%20\(1\).pdf](https://yosemite.epa.gov/OA/RHC/EPAAdmin.nsf/Filings/FA1104AE9832597F8525864E006E04DA/$File/Equilon%20Shell%20PSR_CAF0_Step2%20(1).pdf).

fact, in April 2021, the Northwest Clean Air Agency issued a notice of violation against the Shell Anacortes refinery for a release reported to be due to a hydrocarbon unit failure that “was similar” to the 2015 release.<sup>41</sup>

The proposed rule would be more effective than the current rule in preventing chemical disasters because it takes a “prevention-focused approach . . . rather than the 2019 reconsideration rule’s compliance-driven, mostly post-incident, approach.” 87 Fed. Reg. at 53,566. Specifically, “EPA expects under a rule-driven approach most facilities will proactively make the necessary prevention improvements to be in compliance with the rule to avoid enforcement.” *Id.* at 53,565. Additionally, “EPA anticipates that promulgation and implementation of this proposed rule would result in a reduced frequency and magnitude of damages from releases, including damages . . . such as fatalities, injuries, property damage, hospitalizations, medical treatment, sheltering-in-place and so on, . . . [and] would reduce baseline damages . . . such as lost productivity, responder costs, property value reductions, damages from catastrophes, and so on.” *Id.* at 53,562. EPA’s record includes data showing the proposed rule is likely to be more effective than the current rule in preventing disasters and harm to human health and the environment.

In addition, EPA’s proposal to strengthen prevention measures is well-supported and it need not wait for OSHA to issue stronger worker safety improvements in order to strengthen protections for fenceline communities. *Id.* at 54,566. EPA has a core obligation to protect communities experiencing serious threats and harm from disasters like that at the TPC Group explosion in Port Neches, the PES disaster in Philadelphia, and so many more.

The proposed rule would represent a change in course that is not only rational but also, as these comments explain below, legally required and that would achieve the statutory objective of preventing chemical disasters.<sup>42</sup>

### **3. EPA SHOULD RECOGNIZE ADDITIONAL KEY REASONS AND EVIDENCE THAT SUPPORT ITS CHANGE IN COURSE TO ISSUE STRONGER RULES.**

- A. EPA should recognize that there was and is no rational or reliable basis to use incident data to weaken or narrow protection.

Although serious incidents occurring under the existing rules support the need for stronger action, EPA should also recognize that its prior analysis regarding a potential recent incident decline was incorrect based on the most currently available data. There has been no statistically significant decline in the most recent years for which reports are complete.<sup>43</sup> In fact,

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<sup>41</sup> AP, *Officials give notice to Shell refinery on emissions release*, The Seattle Times (Apr. 22, 2021 at 8:30 am), <https://www.seattletimes.com/seattle-news/officials-give-notice-to-anacortes-shell-refinery-on-emissions-fine-may-follow/>.

<sup>42</sup> See 42 U.S.C. § 7412(r).

<sup>43</sup> Comments of the International Union, United Auto Workers on Proposed Rule Oct. 2022; Comments of the International Union, United Auto Workers on RMP Review at 6 (July 2021) (hereinafter “UAW July 2021 Comments”) (attached).

chemical disasters have increased in frequency from 2010-15.<sup>44</sup> According to the most recent five-year period for which there is complete RMP incident data, 2011-15, 710 harmful accidents occurred, with an annual average of 142 harmful incidents.<sup>45</sup>

Similarly, EPA's existing RMP rules have failed to prevent 1,568 harmful chemical disasters, an average of 156 per year, at RMP facilities during the most recent ten-year period (2007-2016) for which incident reports are believed to be complete.<sup>46</sup> Notably, that is *higher* than count of harmful incidents (1,517, or about 150 per year) during the 10-year period of 2004-2013 that EPA analyzed before the 2017 rule. While industry groups in the public hearings continued to attempt to point to an alleged recent decline in incidents, the most current data available do not support the claim of a recent decline, nor do they show that the existing rules have solved the chemical disaster problem.<sup>47</sup>

Even if there were such reliable data available (which there are not), absolute numbers say nothing about incident rates.<sup>48</sup> It is unclear how – when reporting was not required before the program – and incident numbers are incomplete in recent years, how EPA could conclude anything about rates from the unreliable available data for an initial benchmark, and due to the limited number of years for which there is complete data available.

Importantly, the available information on harmful incidents at regulated facilities underestimates the threat and the harm to communities and workers under the existing rules. Although there is a 6-month deadline to report incidents, some facilities ignore or miss that required deadline, and only update their accident history at the 5-year RMP update deadline.<sup>49</sup> EPA's RMP database provides new evidence proving that delay is occurring: EPA admits there is significant delay in reporting of at least 6.7%. 87 Fed. Reg. at 53,592. Data show that there was delayed incident reporting so additional incidents were added to the database in earlier years, between the 2019 rule and the Sept. 2019 Database, and since then in the more recent database.<sup>50</sup> Although previously EPA believed that delay in reporting would not lead to significant under-counting, it is now clear that speculation was wrong and EPA should acknowledge that there is sufficient under-counting to change course in how it treats the recent incident numbers. EPA cannot rely on those as if they were complete.

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<sup>44</sup> UAW July 2021 Comments at 6-7 & Fig. 1 (summarizing May 2021 EPA RMP (Non-OCA) Database); UAW Oct. 2022 Comments at 2-4 & Fig. 1.

<sup>45</sup> UAW July 2021 Comments at 5 (summarizing May 2021 EPA RMP (Non-OCA) Database).

<sup>46</sup> EPA TBD App. A.

<sup>47</sup> Regardless, the serious hazards – along with each incident and the people affected by each incident are key data EPA should be focusing on – not whether there were fewer incidents on one year compared to another. And, even if there were a decline by any measure in recent years, the substantial number of incidents each year – 156 on average during the last decade, and at least 100 per year – shows a strong need for more stringent safety measures.

<sup>48</sup> UAW Oct. 2022 Comments at 3.

<sup>49</sup> UAW July 2021 Comments at 5-6 (citing EPA 2019 Regulatory Impact Analysis).

<sup>50</sup> UAW July 2021 Comments at 5-6 (Comparison of Number of Impact Accidents Reported in EPA's 2019 Regulatory Impact Analysis with the Number Identified from the September 2019 Database and the May 2021 Database).

EPA's database illustrates that significant delay and thus under-reporting occurred in each of EPA's previous assessments of the incident data, so EPA must recognize that the most recent incident data it is using are missing significant incidents and undercount the harm.<sup>51</sup> For example, the reported incidents rose after the 5-year RMP plan deadlines passed in 2011, 2012, 2013, 2014, 2015, 2016, 2017, 2018, and 2019.<sup>52</sup> The UAW's most recent comments shed further light on this trend.<sup>53</sup> And the trend in delayed reporting means that the incident data for the years 2016 and beyond, while already high numbers, are likely to rise even more as more 5-year RMP updates come due this year and in the years to come. The under-reporting percentage has ranged from 1.56% to 28.32%, so it is hard to predict by how much the most recent years will increase. But the evidence is clear that EPA cannot treat data from 2016-2021 as complete incident information because there can be no doubt that the recent incident data will increase as delayed reports come in.

It is also notable that the "reportable harm" incidents that EPA has evaluated, and that Commenters analyzed for the counts above, does not include all incidents that caused harm because impacts like toxic exposure and hospitalization are not tracked, even though this indicates harm to public health and well-being that EPA should recognize in its analysis.<sup>54</sup>

B. Broad public exposure to catastrophic hazards under the existing RMP rules requires strong disaster prevention measures under the RMP program.

Dire hazards – not just incident data – justify stronger rules. Over half of the American population – 177 million – lives daily in a "worst-case scenario zone" for an industrial chemical catastrophe.<sup>55</sup> The hazards and extent of harm to human life and safety from inadequate implementation of the RMP are of the utmost severity. From the time of the Bhopal tragedy in 1984 through the end of October 2003, according to the Bhopal Gas Tragedy Relief and Rehabilitation Department, compensation was provided to 554,895 people for injuries<sup>56</sup> and 15,310 survivors of those killed.<sup>57</sup>

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<sup>51</sup> UAW July 2021 Comments at 4-6. EPA previously admitted in 2019 and 2020 that there is a delay in reporting – but speculated that this would lead to only a slight increase in reported incidents (Denial of Recon at 11; 2019 Regulatory Impact Analysis at 38-39 n.30, <https://www.regulations.gov/document/EPA-HQ-OEM-2015-0725-2089>).

<sup>52</sup> UAW July 2021 Comments at 5 (Comparison of Number of Impact Accidents Reported in EPA's 2019 Regulatory Impact Analysis with the Number Identified from the September 2019 Database and the May 2021 Database) (showing that early reports of incidents from 2011-2019 were incomplete, compared to later database versions).

<sup>53</sup> UAW October 2022 Comments.

<sup>54</sup> See CSB October 2022 Comments.

<sup>55</sup> The worst-case scenario population exposure is not available to the public. EPA previously published the 177 million number. 2017 RIA at 94, EPA-HQ-OEM-2015-0725-0734; see US Census Bureau QuickFacts (U.S. population as of Apr. 1, 2020, was 331,449,281), <https://www.census.gov/quickfacts/fact/table/US/PST045219>.

<sup>57</sup> Edward Broughton, The Bhopal disaster and its aftermath: a review, 4 Environmental Health at 3 (May 10, 2005), <https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-4-6>.



RMP facilities use, store, or manage an extremely high volume of hazardous chemicals. EPA data appear to show that regulated facilities currently use, store, or manage a total of 101.75 billion pounds of hazardous substances.<sup>58</sup> This includes 125.9 million pounds of hydrogen fluoride, which is fatal for miles if released.<sup>59</sup> These numbers are mind-boggling when millions of people are living, playing, going to school, and working near so many of these facilities.

These highly hazardous chemicals are regulated because they can cause death, injury, acute health hazards, and contribute to serious long-term health problems like cancer.<sup>60</sup> Releases of these chemicals into the air can cause serious harm to and destroy ecological resources on which people rely. Specifically, they contaminate water, killing wildlife and plants, destroying farms and community gardens, and making the human environment unlivable. The huge hazards regulated under the RMP provide a strong reason for robust, new prevention measures.

The data on hazards show that there is a need for stronger rules that will target prevention of catastrophe at the facilities that pose the most serious hazards – *before any incident occurs*. Recognizing the benefit of avoiding catastrophes at highly hazardous RMP facilities that have *not* had recent incidents (as well as those that have) is critical and adds evidence demonstrating that stronger prevention measures are worthwhile. EPA should amplify the recognition that the hazards, not only the incident data, warrant stronger rules. Draft RIA at 15.

EPA should not wait until more incidents have occurred to strengthen the rule. Notably, the Act does not require EPA to justify prevention measures based on incidents or tailor them solely to facilities or sectors with prior incidents. Rather, it requires EPA to implement the necessary measures *before* deadly incidents occur. Unlike other Clean Air Act provisions that allow certain levels of pollution, the RMP is supposed to prevent *all* highly hazardous releases due to the death, injury, and harm to public health and welfare that they cause.

C. Information and recommendations from the Chemical Safety Board strongly support EPA’s proposed rule and show the need for further improvements.

EPA cites and follows CSB investigation reports and recommendations in part, in the proposed rule. EPA should recognize that the CSB recommendations, including the 2022 PES Investigation Report, provide important additional grounds for EPA’s proposal to strengthen protection – and require further improvements to the proposal. Section 112(r)(6) of the Act requires EPA to respond to these recommendations and, if it does not implement them, to justify

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<sup>58</sup> Table of Total Process Chemicals at Active RMP Facilities (May 2021 EPA RMP (Non-OCA) Database (Process Chemicals – sum total at all non-deregistered facilities)). A summary of the method here was to link Process Chemicals via the Facilities Table and Chemicals Table according to unique EPA Facility ID and Facility ID, respectively, according to the Last Receipt Date of the RMP, and then sum the total quantity by chemical.

<sup>59</sup> Table of Total Process Chemicals at Active RMP Facilities (May 2021 EPA RMP (Non-OCA) Database (Process Chemical quantities at non-deregistered facilities – filtered for hydrogen fluoride and summed)).

<sup>60</sup> See, e.g., toxicology information for listed RMP chemicals from EPA’s IRIS program and Cal. EPA’s Office of Environmental Health Hazard Assessment, <https://www.epa.gov/iris>; <https://oehha.ca.gov/chemicals>.

its action with a lawful and reasoned explanation. EPA should fully address these recommendations and satisfy this statutory obligation, as further discussed below.

For example, in the Philadelphia Energy Solutions Investigation Report (2022), the CSB recommended that EPA:

Revise 40 C.F.R. Part 68 (EPA Risk Management Plan) to require new and existing petroleum refineries with HF alkylation units to conduct a safer technology and alternatives analysis (STAA) and to evaluate the practicability of any inherently safer technology (IST) identified. Require that these evaluations are performed every 5 years as a part of an initial PHA as well as PHA revalidations.<sup>61</sup>

The CSB has also released a new safety video on the PES fire and explosion and near-catastrophe that EPA should evaluate.<sup>62</sup>

In the Tesoro Investigation Report (2014), the CSB recommended that EPA:

Revise the Chemical Accident Prevention Provisions under 40 CFR Part 68 to require the documented use of inherently safer systems analysis and the hierarchy of controls to the greatest extent feasible when facilities are establishing safeguards for identified process hazards. The goal shall be to reduce the risk of major accidents to the greatest extent practicable, to be interpreted as equivalent to as low as reasonably practicable (ALARP). Include requirements for inherently safer systems analysis to be automatically triggered for all management of change, incident investigation, and process hazard analysis reviews and recommendations, prior to the construction of a new process, process unit rebuilds, significant process repairs, and in the development of corrective actions.<sup>63</sup>

This recommendation is listed as “Open - Awaiting Response or Evaluation/Approval of Response.”<sup>64</sup>

In addition, the CSB has submitted detailed comments on the proposed rule citing these and other recommendations it has offered to the agency. It appears that EPA also received these comments from the White House Office of Management and Budget interagency review process. It is unclear why EPA did not strengthen the proposal to incorporate stronger STAA and other

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<sup>61</sup> CSB, Fire and Explosions at Philadelphia Energy Solutions Refinery Hydrofluoric Acid Alkylation Unit at 80 (June 21, 2019), No. 2019-04-I-PA (published Oct. 11, 2022) (CSB PES Report), <https://www.csb.gov/philadelphia-energy-solutions-pes-refinery-fire-and-explosions/>.

<sup>62</sup> CSB, Wake Up Call: Refinery Disaster in Philadelphia (Oct. 27, 2022), <https://www.csb.gov/csb-releases-new-safety-video/>.

<sup>63</sup> CSB, Investigation Report: Catastrophic Rupture of Heat Exchanger, Tesoro Anacortes Refinery, Anacortes, Washington, April 2, 2010, Report No. 2010-08-I-WA (May 2014), [http://www.csb.gov/assets/1/7/Tesoro\\_Anacortes\\_2014-May-01.pdf](http://www.csb.gov/assets/1/7/Tesoro_Anacortes_2014-May-01.pdf).

<sup>64</sup> CSB Status of Recommendation Change on Tesoro (attached).



provisions *before* submitting this for public comment, but EPA should act quickly to do so at this point.<sup>65</sup>

As EPA finalizes action, EPA must respond and incorporate these recommendations fully – including by:

- Finalizing the natural hazard, power loss, and stationary source siting provisions;
- Finalizing and expanding the scope of the STAA, third-party compliance audit, and employee participation (including Stop Work Authority) requirements;
- Requiring implementation of inherently safer technologies, practices and processes (“IST”) to the greatest extent practicable;
- Adding “near miss” into the incident investigation requirements;
- Expanding community access to information;
- Strengthening the definition of stationary source;
- Strengthening the process hazard analysis and incident reporting requirements;
- Updating and expanding the list of RMP-regulated substances to include ammonium nitrate and reactive hazards.<sup>66</sup>

The Memorandum of Understanding between CSB and EPA provides for information-sharing recommends that EPA seek and analyze additional information on incidents and investigations not yet available to the public.<sup>67</sup> For example, EPA should also evaluate recent CSB reports providing updates on ongoing investigations, including the following four ongoing investigations of chemical incidents. CSB has Texas, Tennessee, West Virginia, and Georgia:

- (1) **Fatal Refinery Incident at BP-Husky Refining in Oregon, OH.**<sup>68</sup>
- (2) **Fatal Propylene Release and Explosion at Watson Grinding and Manufacturing in Houston, Texas:** The January 24, 2020, explosion fatally injured two employees and seriously injured two others. The event damaged hundreds of nearby homes, businesses, and other structures. The explosion was fueled by propylene that had inadvertently been released inside an enclosed space.

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<sup>65</sup> See, e.g., OMB-EPA comments on Redline of Proposed Rule at 69 of Attachment 2, <https://www.regulations.gov/document/EPA-HQ-OLEM-2022-0174-0088> (“Commented [A102]: We urge EPA not to limit the STAA requirements to RMP-regulated 324 or 325 facilities located within 1 mile of another, but, instead, to require the STAA from all applicable facilities regardless of proximity. We also encourage EPA to adopt stronger language similar to, due to the Chevron Richmond refinery fire, the most recent Contra Costa County (CCC) Industrial Safety Ordinance (ISO) requiring robust STAA analysis, implementation, and documentation as well as the inclusion of goal-setting requirement such as “greatest extent feasible” or ALARP, to help emphasize the implementation of inherently safer designs and the hierarchy of controls; Commented [A103R102]: Thank you for the comment, EPA will review comments received on this proposed prevention program element.”).

<sup>66</sup> CSB Oct. 2022 Comments, <https://www.regulations.gov/comment/EPA-HQ-OLEM-2022-0174-0166>.

<sup>67</sup> Memorandum of Understanding Between EPA and CSB on Chemical Incidents (Mar. 19, 1999), <https://www.epa.gov/sites/production/files/2013-10/documents/csbeqa.pdf>.

<sup>68</sup> CSB, Oct. 31, Update on Investigation into Fatal Refinery Incident at BP-Husky Refining in Oregon, OH, <https://www.csb.gov/csb-releases-update-on-investigation-into-fatal-refinery-incident-at-bp-husky-refining-in-oregon-oh/>

- (3) **Hydrogen Chloride Release at Wacker Polysilicon, LLC in Charleston, Tennessee:** The November 13, 2020, incident involved a heat exchanger that cracked and released hydrogen chloride (HCl) at the facility during maintenance activities. The release caused chemical burns to one contract worker. Another contract worker was injured fatally, and two others were injured seriously when they fell from an elevated structure while attempting to escape the release.
- (4) **Fatal Double Cone Dryer Explosion and Fire at Optima Belle LLC in Belle, West Virginia:** The December 8, 2020, incident, which involved dehydration of a chlorinated isocyanurate compound, resulted in one fatality. The CSB’s update includes extensive background on the process taking place at the facility and the events leading up to the explosion and fire.
- (5) **Fatal Liquid Nitrogen Release at Foundation Food Group in Gainesville, Georgia:** On January 28, 2021, liquid nitrogen was released from a freezer at the chicken processing facility, resulting in the fatal injuries of six employees and the serious injury of three employees and one emergency responder. The CSB’s update provides an incident description, diagrams of the facility, and details about the installation of liquid nitrogen and operational issues.<sup>69</sup>

**Table 1. Ongoing CSB Investigations<sup>70</sup>**

Facility Name	Type of Incident	Location	Incident Date	Chemicals Released	RMP-covered?
LyondellBasell	Chemical Release	La Porte, TX	July 27, 2021	Acetic acid <sup>71</sup>	Does not appear to be covered.
Chemtool Inc.	Fire	Rockton, Ill	June 14, 2021	Unknown	Does not appear to be covered.
Yenkin-Majestic Paint and OPC Polymers Corporation	Explosion and Fire	Columbus, OH	Apr. 8, 2021	Maleic anhydride, phthalic anhydride, xylene, and mineral spirits	Does not appear to be covered.
Foundation Food Group	Chemical Release	Gainesville, GA	Jan. 28, 2021	Liquid nitrogen	Does not appear to be covered.

<sup>69</sup> CSB, Press Release (Oct. 3, 2022), <https://www.csb.gov/csb-releases-updates-on-four-ongoing-investigations-of-chemical-incidents-in-texas-tennessee-west-virginia-and-georgia/>.

<sup>70</sup> Link to Current CSB Investigations: <https://www.csb.gov/investigations/current-investigations/?Type=1>.

<sup>71</sup> E. Foxhall & H. Dellinger, *Details emerge as investigators seek cause of deadly La Porte chemical leak*, Houston Chron. (July 29, 2021), <https://www.houstonchronicle.com/news/houston-texas/environment/article/Details-emerge-in-deadly-La-Porte-chemical-leak-16347530.php> (see staff graphic: Chemical incidents under investigation).

Facility Name	Type of Incident	Location	Incident Date	Chemicals Released	RMP-covered?
Optima Belle LLC	Explosion and Fire	Belle, WV	Dec. 8, 2020	Chlorinated dry bleach powder	Yes
Wacker Polysilicon	Chemical Release	Charleston, TN	Nov. 13, 2020	Hydrochloric acid	Yes
Evergreen Packaging Mill Chemical	Fire during scheduled maintenance	Canton, NC	Sept. 21, 2020	Unclear	Yes
Bio Lab	Chemical Release	Conyers, GA	Sept. 14, 2020	Chlorine	Does not appear to be covered.
Bio Lab	Chemical Fire and Release	Lake Charles, LA	Aug. 27, 2020	Chlorine	Does not appear to be covered
Wendland 1H Well	Explosion	Burleson County, TX	Jan. 29, 2020	Unclear.	Unclear
Watson Grinding	Explosion, Fire, and Chemical Release	Houston, TX	Jan. 24, 2020	Propylene	Unclear
TPC Group	Explosion and Fire	Port Neches, TX	Nov. 27, 2019	1,3-butadiene and raffinate-1	Yes
KMCO LLC	Fire and Explosion	Crosby, TX	Apr. 2, 2019	Isobutylene	Yes
Intercontinental Terminal Company (ITC) Tank	Fire	Deer Park, TX	Mar. 17, 2019	Naphtha-butane	Yes
Kuraray America	Explosion	Pasadena, TX	May 19, 2018	Ethylene vinyl-alcohol copolymers	Yes
Husky Energy Refinery	Explosion and fire	Superior, WI	Apr. 26, 2018	HF	Yes
Didion Milling Co.	Explosion and fire	Cambria, WI	May 31, 2017	Combustible dust	Yes

D. Climate change and NaTech threats justify changing course toward protection.

EPA correctly and well supports the new regulatory provisions on natural hazard and power loss, as discussed below. The agency should further recognize that all of the same data on the facilities prone to climate risk and the RMP incidents related to extreme weather and power loss demonstrate that there is a strong need to restore STAA and other prevention measures previously rescinded (and further strengthen them as discussed below). *See, e.g., 87 Fed. Reg. at 53,567-71; Nat'l Ctr. For Env'tl Economics, Natural Hazards and Technological Disasters Dec.*

2021) (EPA Tech. Background Document App. B). That is because the growing climate threats increase the need for stronger prevention across the board in the RMP program – to assess and eliminate hazards, to improve safety audits and incident investigation, and to strengthen all other components of the program addressed in the proposed rule.<sup>72</sup>

E. Environmental justice factors strongly favor strengthening the RMP rules.

Equity requires a stronger rule. Impacts and threats from chemical disasters are compounded for communities with: multiple RMP facilities, significant existing environmental and health burdens, and significant environmental justice concerns. EPA should prioritize strengthening this rule in part due to the unjust threats and impacts of chemical disasters. Overall, the communities with the most facilities and the worst experience of incidents and threats greatly need more regulatory protection for their health and safety.

Data show that RMP facilities are not spread equally across the country. Some communities have a much larger number of facilities than others. The rule must protect the communities who face greater, cumulative impacts from multiple RMP facilities.

Twenty percent of all the RMP facilities in the U.S are located in just seventy counties, or 2.2% of all counties in the U.S.<sup>73</sup> For example, at least 205 active RMP facilities are located in Harris County, Texas alone, and at least 109 in Los Angeles County, California. Other counties with the highest numbers of active RMP facilities, *i.e.*, twenty-five or more, include:

- Cook County, IL (Chicago), Dallas County, TX, Tarrant County, TX (Fort Worth), Jefferson County, TX (Port Arthur), Wayne MI (Detroit), Maricopa County, AZ (Phoenix), Bexar County, TX (San Antonio) Calcasieu, LA (Lake Charles), Duval County, FL (Jacksonville), Mobile County, AL, Polk County, FL (Lakeland), Orange County FL (Orlando), Fulton County, GA (Atlanta), and Tulsa County, OK.

The database shows that about 832 counties have five or more facilities, and about 1,349 have one to four.<sup>74</sup>

Further, available data on incidents by county show that chemical disasters are occurring disproportionately in particular communities, and this inequity requires action. Communities in Houston, Dallas, and Port Arthur, TX; Cancer Alley, LA; New Castle, DE; Charleston, WV; and Tampa, FL, and others have faced serious incidents and harm in recent years.<sup>75</sup>

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<sup>72</sup> See, e.g., UCS *et al.*, *Preventing 'Double Disasters'* at 3, 13 (July 2021), <https://www.regulations.gov/document/EPA-HQ-OLEM-2022-0174-0072>.

<sup>73</sup> The 70 counties with 20 or more active facilities contain a total of 2,375 facilities, or 20% of the total 11,764 active facilities (as of May 2021 RMP Database). There are about 3,141 counties and significant equivalents. U.S. Geological Survey CoreFacts (Apr. 3, 2008), <https://www.usgs.gov/media/audio/how-many-counties-are-there-united-states>.

<sup>74</sup> Active RMP Facilities by County FIPS (as of May 2021 RMP Database).

<sup>75</sup> These numbers show incidents before the California Refinery Rule and Richmond and Contra Costa ordinances were enacted and took effect.

**Table 2. Reported Harm Incidents Since 2004 in 20 Counties With Most Incidents<sup>76</sup>**

<b>CountyFIPS</b>	<b>County</b>	<b>State</b>	<b>Total</b>
48201	Harris	TX	83
22005	Ascension	LA	57
22019	Calcaseiu	LA	52
48039	Brazoria	TX	47
22121	West Baton Rouge	LA	43
05139	Union	AR	39
48245	Jefferson	TX	29
06037	Los Angeles	CA	28
22047	Iberville	LA	27
10003	New Castle	DE	26
48167	Galveston	TX	23
06029	Kern	CA	19
12057	Hillsborough	FL	19
22089	St. Charles	LA	19
48355	Nueces	TX	19
49045	Tooele	UT	17
54051	Marshall	WV	16
17031	Cook	IL	14
06019	Fresno	CA	13
48057	Calhoun	TX	13
48113	Dallas	TX	13
54039	Kanawha	WV	13
06013	Contra Costa	CA	11
06077	San Joaquin	CA	11

Available data show that the more facilities there are in a community, the more harm and risk the community experiences. Communities with multiple RMP facilities face more incidents,

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<sup>76</sup> Source: EPA May 2021 RMP (Non-OCA) Database (showing incidents causing reported deaths, injuries, and other harm to people, property damage, and ecological damage). The minimum value of facility count FIPS was selected for each EPA facility ID. An event was considered a human impact event if at least one of the following minimum values was greater than zero: onsite or offsite deaths, onsite or offsite injuries (including hospitalization and medical care), onsite or offsite property damage, evacuations, or sheltering in place. If all of the above were zero, but at least one of the following was indicated as “yes,” the event was considered to be an eco-damage only event: Fish or animal kills, minor defoliation, major defoliation, water contamination or “other ecological damage.” Human impact events were aggregated by county. Eco-damage only events were aggregated by county and the two were added together.

more short and long-term health impacts, and a greater risk of chemical disasters.<sup>77</sup> Indeed, seven of the open CSB investigations involve chemical disasters in Texas, most in the Houston-Port Arthur area, as the *Houston Chronicle*'s graphic shows.<sup>78</sup> Therefore, fence-line communities with multiple RMP facilities have a particularly great and urgent need for stronger rules.

Commenters have provided maps showing the disproportionate and severe hazards for example communities around the U.S.<sup>79</sup> As these maps illustrate, RMP facilities are often located in communities that also have other high environmental health burdens, like cancer risk from toxic air pollution.<sup>80</sup> This multiplied impact shows a particular need to strengthen protection from chemical disasters, because many communities near RMP facilities are already facing high cumulative impacts from pollution.

New information highlights the inequity caused by EPA's failure to effectively regulate RMP facilities and prevent chemical disasters. Analysis of current RMP data shows that people who live closest to RMP facilities, and who face more incidents, injuries, and harm from chemical disasters, are disproportionately people of color or low-income people.<sup>81</sup> EPA must not allow for this substantial, unjust harm to continue.<sup>82</sup>

EPA must require stronger chemical disaster prevention rules that assure protection nationwide, especially for people who need this protection the most: people with multiple RMP facilities in their community, people already facing other types of environmental health burdens like cancer risk from air pollution, and people of color and low-income people who face multiple layers of injustice including disproportionate chemical disasters and risks. Indeed, the National Environmental Justice Advisory Council has repeatedly urged EPA to strengthen the RMP rules.<sup>83</sup>

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<sup>77</sup> UAW July 2021 Comments at 11-13 & Figs. 8-10 (analyzing data from facilities and incidents in the same zip codes) ("Correlation analysis found a statistically significant relationship between the number of RMP-covered facilities that operated in the zip code for some part of the time between 2004 and 2015 and the number of impact accidents that occurred in a zip code during that time.").

<sup>78</sup> E. Foxhall & H. Dellinger, *Details emerge as investigators seek cause of deadly La Porte chemical leak*, *Houston Chron.* (July 29, 2021), <https://www.houstonchronicle.com/news/houston-texas/environment/article/Details-emerge-in-deadly-La-Porte-chemical-leak-16347530.php> (see staff graphic: Chemical incidents under investigation).

<sup>79</sup> See Maps (created by Ava Farouche, Earthjustice) (July 2021) (attached).

<sup>80</sup> See Maps (created by Ava Farouche, Earthjustice) (July 2021) (attached).

<sup>81</sup> UAW July 2021 Comments at 9-11 & Figs. 5-7

<sup>82</sup> See, e.g., R. White, UCS, *The Impact of Chemical Facilities on Environmental Justice Communities* (Aug. 2018) (attached).

<sup>83</sup> NEJAC Letter to Adm'r Wheeler re: Recommendation to preserve the Chemical Disaster Safety Rule (May 3, 2019), <https://www.epa.gov/sites/default/files/2019-08/documents/nejac-recommendations-risk-management-programs-may-3-2019.pdf>; NEJAC to Adm'r Jackson (Mar. 14, 2012), <https://www.epa.gov/sites/default/files/2015-02/documents/2012-preventing-chemical-plant-disasters.pdf> (recommending that "EPA use its authority under the 1990 Clean Air Act, Section 112(r), to reduce or eliminate these catastrophic risks, where feasible, by issuing new rules and guidance").

F. EPA’s current policy goals better align with the statute than the prior Administration’s.

In addition to EPA’s other well-reasoned explanations for the change in policy in the proposed rule, EPA may choose to rely on the fact that an administration change has led to a restoration of policy goals that are more in line with the statutory provision grounding the proposed action.<sup>84</sup> A change in an administration’s policy goals provide a reasonable basis for an agency to change position as long as it fulfills all legal requirements and grounds the change, as EPA has done here, in the record.<sup>85</sup> As President Biden’s Executive Order 13990 demonstrates, this Administration recognizes important, different policy priorities from the prior Administration, placing greater value on public health and safety, environmental justice and environmental protection, science integrity, and worker safety than the prior Administration.<sup>86</sup> Applying these policy priorities here logically leads to a significantly stronger rule than the prior Administration. The reasons EPA gives for changing course show that it “believes these reasons to be better” than the prior reasons. *Fox. v. FCC*, 556 U.S. at 515. The record supports EPA’s conclusion.

G. The delay in strengthening protection justifies expeditious regulatory improvements.

In addition to evaluating new information received during the listening session comment period and public hearings, EPA should consult and rely on longstanding evidence, information on safer chemical and manufacturing alternatives, and requests for strong regulatory action that it has received over the last decade.<sup>87</sup> Fenceline communities, environmental health and safety groups, scientists, workers, and first responders have been calling for stronger protection for over a decade.<sup>88</sup> They have called for a rule that prioritizes the public interest and the health of the most affected people, and that requires as many regulated facilities as possible to do all they can to prevent chemical disasters.

In support of a final rule that prevents, detects, responds to and minimizes harm from chemical disasters minimization “to the greatest extent practicable,” EPA should incorporate by reference into this docket the entire 2017 Rule docket, EPA-HQ-OEM-2015-0725 (which also incorporated the 2014 Request for Information docket).<sup>89</sup> 42 U.S.C. § 7412(r)(7)(B). That

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<sup>84</sup> *Nat’l Ass’n of Home Builders v. EPA*, 682 F.3d 1032, 1038 (D.C. Cir. 2012) (quoting *Fox*, 556 U.S. 515).

<sup>85</sup> *See Nat’l Ass’n of Home Builders*, 682 F.3d 1032 at 1043; *see Chevron, U.S.A., Inc. v. NRDC*, 467 U.S. 837, 865 (1984) (“[A]n agency to which Congress has delegated policy-making responsibilities may, within the limits of that delegation, properly rely upon the incumbent Administration’s views of wise policy to inform its judgments.”).

<sup>86</sup> *See* Exec. Order No. 13,990 (Jan. 25, 2021).

<sup>87</sup> *See* Dockets for the 2014 Request for Information, EPA-HQ-OEM-2014-0328, and 2017 Proposed Rule EPA-HQ-OEM-2015-0725.

<sup>88</sup> *See, e.g.,* Sierra Club et al., Petition to Prevent Chemical Disasters to EPA Administrator Lisa Jackson (July 25, 2012), EPA-HQ-OEM-2015-0725-0249 (attached).

<sup>89</sup> *See* EPA, Memorandum from Kathy Franklin, OEM to Docket EPA-HQ-OEM-2015-0725, regarding incorporation by reference of all documents and comments from Docket EPA-HQ-OEM-2014-0328, EPA-HQ-OEM-2015-0725-0873.

docket includes significant findings and evidence that supported the Obama-Biden Rule and support this proposed rule. For example, in 2017, “EPA identified specific incidents that demonstrated failures and difficulties in accident prevention, emergency response, and information availability despite the general effectiveness of Part 68.”<sup>90</sup> Commenters have submitted the 2017 Rule docket into the record and rely on that in support of these comments.

EPA should reaffirm and add to its core findings that portions of this proposed rule – like STAA, NaTech provisions, employee participation, incident investigation, compliance audits, among others – are more likely than the existing rules to prevent and avoid incidents and to reduce their consequences. *See, e.g., Air Alliance Houston*, 906 F.3d at 1065 (citing EPA findings that 2017 rule included “life-saving protections”).<sup>91</sup> EPA need not prove its action is guaranteed to solve the problem of chemical disasters – EPA can and must issue rules that do all that the agency can to advance solutions, as the Act directs.

## COMMENTS IN EPA’S REQUESTED ORDER

### 1. REQUIREMENT TO ADDRESS NATURAL HAZARDS (SECTION IV.A.1.B)

#### A. EPA should finalize the natural hazard provisions with improvements.

Commenters strongly support EPA’s proposal to explicitly require evaluation of natural hazards in hazard reviews and PHAs for Program 2 and Program 3 RMP-regulated processes. 87 Fed. Reg. at 53,567 (proposing amendments to 40 C.F.R. § 68.50(a) (Program 2 processes) and 40 C.F.R. § 68.67(a)–(c) (Program 3 processes)). Substantial evidence supports EPA’s recognition that its new rule must address the impact of climate change and “NaTech” risks— “disasters that arise from the coincident effects of a natural hazard, like a storm or earthquake, and the failure or disruption of technological infrastructure, such as chemical plant spills, releases, and explosions.”<sup>92</sup>

EPA must explicitly require evaluation of natural hazards to fulfill the statute’s directive to provide, “to the greatest extent practicable, for the prevention and detection of accidental releases . . . and for response to such releases.”<sup>93</sup> Natural disasters are an increasingly common contributing factor to chemical incidents due to facilities’ inadequate preparation for foreseeable

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<sup>90</sup> EPA Response to Comments on the 2016 Proposed Rule Amending EPA’s Risk Management Program Regulations at 246 (March 14, 2016; 81 FR 13637) (Dec. 19, 2016) (2017 RTC), EPA-HQ-OEM-2015-0725-0729.

<sup>91</sup> *See, e.g.,* 2017 Final Rule, 82 Fed. Reg. 4597-98, 4600, 4683-84 (finding the 2017 rule would reduce “the frequency and magnitude” of chemical incidents and other harm and would advance “prevention of major catastrophes”); *see also* 2016 Proposed Rule, 81 Fed. Reg. 13,648-49, 13,655-56, 13,664, 13,671-74, 13,677-78 (listing examples where the pre-existing rules had failed to prevent incidents or minimize their consequences). These support EPA’s findings here which should be further emphasized, *e.g.,* 87 Fed. Reg. at 53,562 that “promulgation and implementation of this proposed rule would result in a reduced frequency and magnitude of damages from releases” including quantified and unquantified harm.”

<sup>92</sup> UCS *et al., Preventing “Double Disasters* at 3.

<sup>93</sup> 42 U.S.C. § 7412(r)(7)(B).



risks.<sup>94</sup> The fact that “well-prepared hazard evaluations under the RMP rule already address NaTech” shows that this requirement is practicable.<sup>95</sup> The need for NaTech and power loss measures are well-documented in reports and recommendations from the EPA’s Office of Inspector General and Office of Enforcement and Compliance Assurance,<sup>96</sup> the U.S. Chemical Safety and Hazard Investigation Board,<sup>97</sup> and the Center for Chemical Process Safety,<sup>98</sup> all of which have acknowledged the need to assess, prevent, and mitigate NaTech risks.

EPA also must finalize the NaTech provisions because the CSB’s recommendations carry particular weight and EPA must respond to incorporate them or fulfill its statutory obligation to justify not doing so. 42 U.S.C. § 7412(r)(6)(I).<sup>99</sup>

Failing to finalize this requirement would be arbitrary and capricious in view of strong evidence that: (1) the current rule and guidance are insufficient;<sup>100</sup> (2) natural hazards are becoming increasingly intense, frequent, and harmful due to climate change<sup>101</sup> and a significant number of RMP facilities are located in known high-climate risk areas;<sup>102</sup> and (3) NaTech

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<sup>94</sup> Center for Progressive Reform et al., *Preventing “Double Disasters”: How the U.S. Environmental Protection Agency can protect the public from hazardous chemical releases worsened by natural disasters* at 6 (July 2021), <http://progressivereform.org/our-work/energy-environment/preventing-double-disasters/> (“UCS et al., *Preventing “Double Disasters”*”).

<sup>95</sup> 87 Fed. Reg. at 53,568.

<sup>96</sup> EPA, Enforcement Alert: Risk of Chemical Accidents During Process Startup (Feb. 2021), <https://www.epa.gov/sites/production/files/2021-02/documents/ncistartupsafety-enforcementalert.pdf>; EPA Office of Inspector General, EPA Needs to Improve Its Emergency Planning to Better Address Air Quality Concerns During Future Disasters, Report No. 20-P-0062 (Dec. 16, 2019), <https://www.epa.gov/office-inspector-general/report-epa-needs-improve-its-emergency-planning-better-address-air-quality>.

<sup>97</sup> See CSB, Organic Peroxide Decomposition, Release, and Fire at Arkema Crosby Following Hurricane Harvey Flooding 13 (2018); CSB, 2020 Hurricane Season: Guidance for Chemical Plants During Extreme Weather Events (2020), [https://www.csb.gov/assets/1/6/extreme\\_weather\\_-\\_final\\_w\\_links.pdf](https://www.csb.gov/assets/1/6/extreme_weather_-_final_w_links.pdf).

<sup>98</sup> See Ctr. for Chem. Process Safety (CCPS), Am. Inst. of Chem. Engrs, CCPS Monograph: Assessment of and planning for natural hazards (2019), <https://www.aiche.org/sites/default/files/html/536181/NaturalDisaster-CCPSmonograph.html>.

<sup>99</sup> See CSB Oct. 2022 Comments, <https://www.regulations.gov/comment/EPA-HQ-OLEM-2022-0174-0166>.

<sup>100</sup> RMP data show that significant numbers of NaTech hazards are still occurring. See 87 Fed. Reg. at 53,567-68.

<sup>101</sup> See, e.g., Center for Progressive Reform et al., *Preventing “Double Disasters”: How the U.S. Environmental Protection Agency can protect the public from hazardous chemical releases worsened by natural disasters* at 6 (July 2021), <http://progressivereform.org/our-work/energy-environment/preventing-double-disasters/> (“UCS et al., *Preventing “Double Disasters”*”); *Statement from CSB Chairman Katherine Lemos on the Lessons from Hurricane Harvey Following Recent Extreme Weather in Houston* (Mar. 4, 2021), available at: <https://inspectioneering.com/news/2021-03-04/9560/statement-from-csb-chairman-katherine-lemos-on-the-lessons-from-hurricane-harvey>.

<sup>102</sup> Center for Progressive Reform et al., *Preventing “Double Disasters”: How the U.S. Environmental Protection Agency can protect the public from hazardous chemical releases worsened by natural disasters* at 6 (July 2021), <http://progressivereform.org/our-work/energy-environment/preventing-double-disasters/> (“UCS et al., *Preventing “Double Disasters”*”).

incidents can cause cumulative and compounding damage to the health and safety of facility workers and the public.

First, the current rule and guidance are insufficient. EPA's existing RMP does not include any explicit requirement to assess or plan for NaTech or natural disaster threats, or to implement mitigation requirements to protect the public during these events. As hurricanes, high winds, flooding, and other severe weather are predictable and well-documented by science and recent years of experience, it is essential for EPA to finalize the proposed natural hazard and power loss provisions and set regulations that protect people from the grave additional danger of chemical disasters during severe storms. Indeed, the most recent International Panel on Climate Change report, *Climate Change 2022: Impacts, Adaptation and Vulnerability*, explicitly references infrastructure failures caused by flooding and the need to account for NaTech disasters and the risks posed to urban communities.<sup>103</sup> With so many RMP facilities facing the extra risk of a chemical release, fire, or explosion that natural disasters or severe weather can create directly or due to loss of electrical power, it is essential for EPA to ensure that facilities are required to assess and address NaTech incidents. Further, a new chemical disaster prevention rule must implement appropriate mitigation requirements that specifically address climate change and natural disasters, as further discussed below. The CSB Chair has highlighted the need for action to address extreme weather.<sup>104</sup>

Data show that NaTech disasters are a frequent and serious threat under the current rules. When industrial facilities fail to adequately prepare for natural disasters, they can release hazardous chemicals, catch fire, or explode. Furthermore, extreme weather conditions often lead to more frequent shutdowns and startups. Accidents can happen during start-ups if caution is not taken. For example, when Texas experienced extremely low temperatures in February of 2021 during the winter storms Uri and Viola, many petrochemical and RMP facilities shut down after losing power.<sup>105</sup> As a result, about 194 facilities released at least 3.5 million pounds of toxic chemicals – likely including some RMP facilities, although data are not available breaking this down – and there were hundreds of thousands of pounds released in the Houston area alone.<sup>106</sup> As of February 21, 2021, the Texas Commission on Environmental Quality reported that 74 petrochemical facilities were partially shutdown, fully shutdown, or idling, and five were starting

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<sup>103</sup> Pörtner, Hans-Otto, et al. "Climate change 2022: Impacts, adaptation and vulnerability." IPCC Sixth Assessment Report (page 936) (2022), available at:

[https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC\\_AR6\\_WGII\\_FullReport.pdf](https://www.ipcc.ch/report/ar6/wg2/downloads/report/IPCC_AR6_WGII_FullReport.pdf).

<sup>104</sup> *Statement from CSB Chairman Katherine Lemos on the Lessons from Hurricane Harvey Following Recent Extreme Weather in Houston* (Mar. 4, 2021), available at:

<https://inspectioneering.com/news/2021-03-04/9560/statement-from-csb-chairman-katherine-lemos-on-the-lessons-from-hurricane-harvey>.

<sup>105</sup> U.S. EPA, Winter Storms Uri and Viola, [https://response.epa.gov/site/site\\_profile.aspx?site\\_id=15082](https://response.epa.gov/site/site_profile.aspx?site_id=15082).

<sup>106</sup> E. Douglas, Texas plants released nearly as much pollution during winter storm as during Hurricane Laura, Tex. Trib. (Feb. 24, 2021), <https://www.texastribune.org/2021/02/24/texas-winter-storm-pollution-emissions/>; see also K. Watkins, Houston-Area Refineries, Plants Emitted Thousands Of Pounds Of Additional Air Pollution During The Winter Freeze: State documents show facilities released some 700,000 pounds of excess air pollutants last week, as they faced electrical outages and equipment failures due to the severe winter weather, Houston Pub. Media (Feb. 24, 2021), <https://www.houstonpublicmedia.org/articles/news/energy-environment/2021/02/24/392215/houston-area-facilities-emitted-thousands-of-pounds-of-additional-air-pollution-during-the-winter-freeze/>.

up.<sup>107</sup> Weeks later, EPA documented that on March 9, 2021, there were still 32 impacted petrochemical facilities that partially or fully shut down, and 48 that were starting up.<sup>108</sup> As of March 9, 2021, EPA stated that it had received a total of 114 National Response Center (NRC) reports in EPA's Area of Responsibility (AOR) related to Winter Storms Uri and Viola, that were air releases; it did not distinguish between releases from RMP facilities and other facilities.<sup>109</sup> EPA also received reports of refineries and other facilities reporting "force majeure" requests to avoid enforcement due to "emissions exceedances."<sup>110</sup> At refineries, that are RMP facilities, all of these should be recognized as near misses for immediately life-threatening fires, explosions, and releases of RMP chemicals at these facilities. Most of these events seem to represent near-misses for larger chemical disasters.

Commenters have added the remaining 2021 and 2022 NRC data into the record. These reports include additional releases and near misses related to hurricanes and other "natural phenomena."<sup>111</sup>

Second, as EPA recognizes, evidence shows that as climate change worsens severe weather and natural disasters, a growing NaTech threat requires action to address this problem. 87 Fed. Reg. at 53,567-69 (citing evidence).<sup>112</sup> As the National Center for Environmental Economics found, over 90% of counties with RMP facilities experienced flooding in the last two decades and 25% faced hurricanes.<sup>113</sup> Further, "RMP facilities tend to be in regions that experience statistically significantly more floods, extreme winter weather events, extreme heat, and tornadoes than counties without RMP facilities."<sup>114</sup> Notably, "RMP facilities near environmental justice communities have suffered far more hurricanes and wildfires from 2000-2020 than other counties with RMP facilities."<sup>115</sup>

Newly available information shows that, as climate change intensifies, RMP and other chemical facilities are in areas that are increasingly at risk of natural disasters and NaTech incidents. About one third of the chemical facilities that the RMP regulates (or 3,856) are in areas exposed to an increased risk of natural disasters, including wildfire, storm surge, flooding,

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<sup>107</sup> Winter Storms Uri & Viola, EPA Report #5 (Feb. 21, 2021),

<https://response.epa.gov/sites/15082/files/Winter%20Storms%20Report%205%2002212021.pdf>.

<sup>108</sup> Winter Storms Uri & Viola, EPA Report #21 (Mar. 9, 2021),

<https://response.epa.gov/sites/15082/files/Winter%20Storms%20Report%2021%2003092021.pdf>.

<sup>109</sup> Winter Storms Uri & Viola, EPA Report #24 (Mar. 13, 2021),

<https://response.epa.gov/sites/15082/files/Winter%20Storm%20Report%2025%2003132021.pdf>.

<sup>110</sup> See, e.g., Winter Storms Uri & Viola, EPA Report #13 (Mar. 1, 2021),

<https://response.epa.gov/sites/15082/files/Winter%20Storms%20Report%2013%2003012021.pdf>.

<sup>111</sup> National Response Center Incident Reports 2021 and 2022, available at

<https://nrc.uscg.mil/Default.aspx> (attached, including air and other types of chemical releases from RMP facilities, some facilities that should but are not covered by the RMP, as well as other types of facilities).

<sup>112</sup> GAO Chem. Accident Prevention, EPA Should Ensure Regulated Facilities Consider Risks from Climate Change, GAO-22-104494 (Feb. 2022), <https://www.regulations.gov/document/EPA-HQ-OLEM-2022-0174-0072>.

<sup>113</sup> Nat'l Center for Env'tl Econ., *Natural Hazards and Technological Disasters* at 5 (Dec. 2021), EPA Tech. Background Document App. B, [EPA-HQ-OLEM-2022-0174-0066](https://www.regulations.gov/document/EPA-HQ-OLEM-2022-0174-0066).

<sup>114</sup> *Id.* at 5.

<sup>115</sup> *Id.* at 4.

and sea level rise, as found in *Preventing “Double Disasters,”* a policy brief prepared by UCS, CPR, and Earthjustice.<sup>116</sup>

Important new data and a climate resiliency tool from NOAA – the Climate Mapping for Resilience and Adaptation portal - also provides robust scientific evidence showing climate-related hazards happening in real-time in the United States, and climate-related risks demonstrating how critical the NaTech provisions in this proposed rule are.<sup>117</sup> For example, consulting this resource on October 21, 2022 showed the following according to NOAA data:

- During the last 30 days, there have been seven days where 6% of the entire U.S. population was under a heat alert, according to data from the NOAA National Weather Service.
- On this day alone, there are 333 active wildfires, according to data from the National Interagency Fire Center.
- There are over 5.7 million people currently under a flood alert, according to the NOAA National Weather Service.<sup>118</sup>

This tool should be used by EPA and by facilities to assess climate risks near them.<sup>119</sup> The CMRA Assessment tool shows “current and future climate hazard information to assist federal agencies . . . with prioritizing, identifying, and implementing climate-informed” actions and can be used down to the census tract level.<sup>120</sup> A similar mapping tool, National Risk Index for Natural Hazards, developed by the Federal Emergency Management Agency (FEMA), allows users to identify communities facing the greatest risk to eighteen natural hazards, including coastal flooding, earthquakes, hurricanes, and wildfires, and creates a score (or risk index) for communities at the census tract level.<sup>121</sup> Additionally, the tool provides information on the level of expected annual loss, social vulnerability, and community resilience. For example, Harris County, in Houston, TX, has been identified as having a “very high” risk index (80.62 score compared to a 12.89 score for Texas and 10.60 score for the national average). The tool shows that “99.99% of US counties have a lower Risk Index and 100.0% of counties in Texas have a lower Risk Index.”<sup>122</sup> The tool also shows that the expected annual loss is “very high,” social vulnerability is “relatively moderate” and community resilience is “relatively low.” This is yet another tool that EPA should use to assess which communities not only face the greatest climate risks, but also where community resilience (which “uses demographic characteristics to measure

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<sup>116</sup> UCS *et al.*, *Preventing “Double Disasters”* at 7.

<sup>117</sup> <https://resilience.climate.gov/>; <https://www.noaa.gov/news-release/biden-administration-launches-portal-to-help-communities-assess-exposure-to-climate-hazards>,

<sup>118</sup> NOAA, Climate-related hazards in real-time on Oct. 21, 2022, <https://resilience.climate.gov/>.

<sup>119</sup> <https://livingatlas.arcgis.com/assessment-tool/>.

<sup>120</sup> <https://resilience.climate.gov/pages/user-guide>.

<sup>121</sup> FEMA, National Risk Index Map (November 2021), available at: <https://hazards.fema.gov/nri/map>

<sup>122</sup> FEMA, National Risk Index Map, Harris County, Texas, Risk Index (November 2021), available at: <https://hazards.fema.gov/nri/map>

a community's ability to prepare for, adapt to, withstand, and recover from the effects of natural hazards"<sup>123</sup>) is low and of great concern.

In addition, EPA offices, including all regional offices, have recently released new Climate Adaptation Implementation Plans. These provide a wealth of information that EPA and facilities should use to assess climate risks at RMP facilities.<sup>124</sup> For example, EPA Region 6 has assessed and identified the following "vulnerabilities associated with a changing climate," showing the specific types of risks that RMP facilities in these states must assess and prepare for under the RMP:

**Arkansas:** Extreme heat and extreme precipitation events, unprecedented warming, droughts

**Louisiana:** Sea level rise/coastal inundation, frequency/intensity of storms

**New Mexico:** Unprecedented warming, droughts, wildfires

**Oklahoma:** Droughts, wildfires, unprecedented warming, flooding

**Texas:** Sea level rise/coastal inundation, frequency/intensity of storms, droughts, increased wildfire frequency and severity.<sup>125</sup>

EPA Region 6 has identified the following for Texas: "frequent occurrences of a variety of extreme events, including hurricanes, tornadoes, droughts, heat waves, cold waves, and intense precipitation."<sup>126</sup> EPA also found that in the state of Texas, the "[m]ean annual temperature has increased by approximately 1 degree F since the first half of the 20<sup>th</sup> century" and that "unprecedented warming is projected by the end of the 21<sup>st</sup> century."<sup>127</sup> Notably of serious concern for RMP facilities: "increases in hurricane rainfall rates, storm surge height due to sea level rise, and the intensity of the strongest hurricanes are projected."<sup>128</sup>

Similarly:

- "U.S. EPA Region 4 has an approximate total coastline of 2,035 miles that may be impacted by large weather events, such as hurricanes. An increase in storm severity and sea level rise may cause large storm surge damage in communities and industrial facilities along U.S. EPA Region 4's coastline. In addition, inland flooding due to intense and frequent storms may cause extensive flood damage in communities and

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<sup>123</sup> FEMA, National Risk Index Technical Documentation (November 2021), available at: [https://www.fema.gov/sites/default/files/documents/fema\\_national-risk-index\\_technical-documentation.pdf](https://www.fema.gov/sites/default/files/documents/fema_national-risk-index_technical-documentation.pdf).

<sup>124</sup> EPA, Climate Adaptation Plans, National Program, Regional Office, and Office of Policy Climate Adaptation Implementation Plans (October 2022), <https://www.epa.gov/climate-adaptation/climate-adaptation-plans>.

<sup>125</sup> EPA Region 6 Climate Adaptation Implementation Plan at 5 (Oct. 2022), [https://www.epa.gov/system/files/documents/2022-10/bh508-R06%20EPA%20CAIP\\_Submitted\\_October2022\\_508.pdf](https://www.epa.gov/system/files/documents/2022-10/bh508-R06%20EPA%20CAIP_Submitted_October2022_508.pdf).

<sup>126</sup> *Id.* at 15.

<sup>127</sup> *Id.* at 15.

<sup>128</sup> *Id.* at 15 (citing Runkle 2017).



industrial facilities that were not predicted to be affected under current flood maps.”<sup>129</sup>

- EPA Region 3 recognized that: “Flooding from more frequent intense storms and extreme events could compromise chemical containment strategies at oil facilities and toxic chemical and pesticide storage facilities. Facilities located in coastal areas and/or within the 100- to 500-year floodplain of a surface water body are of concern to EPA Region III.”<sup>130</sup>
- And Region 2 highlighted that, “[n]atural hazards that are exacerbated by climate change could, for example, result in flooding that inundates tanks and pipelines, leading to corrosion, severance of pipe connections, and rupture. Other climate-related hazards that could impact RMP facilities include sea level rise and hurricane force winds.”<sup>131</sup>

EPA’s Office of Land and Emergency Management reviewed the science and correctly recognized that EPA’s Office of Land and Emergency Management reviewed the science and correctly recognized that “[t]he frequency and severity of accidental chemical releases and oil spills could increase due to climate change impacts such as more intense flooding or more frequent wildfires.”<sup>132</sup> Therefore, OLEM has correctly recognized that “[c]limate change and natural hazard risks need to be considered when developing chemical release . . . prevention regulations or issuing or updating policies and guidance materials.”<sup>133</sup>

Academic researchers in recent years have also spotlighted this serious problem. For example, one report identified 872 highly hazardous chemical facilities within 50 miles of the hurricane-prone U.S. Gulf Coast, with over 4.3 million people, 1,717 schools, and 98 medical facilities in near proximity (within 1.5 miles).<sup>134</sup> These numbers are underestimates because the available data is outdated. The cold snap in Texas in February 2021 and heat wave in the Pacific Northwest in July 2021 illustrate that the risks are broader than previously identified. In the Pacific Northwest, less data is available, but there is at least one example from the few days of

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<sup>129</sup> EPA, Region 4, Climate Adaptation Implementation Plan at 54-55 (Oct. 2022), [https://www.epa.gov/system/files/documents/2022-10/bh508-R04%202022%20Climate%20Adaptation%20Implementation%20Plan\\_2022.09%20version\\_As%20uploaded%20to%20OP%20for%20508%20compliance.pdf](https://www.epa.gov/system/files/documents/2022-10/bh508-R04%202022%20Climate%20Adaptation%20Implementation%20Plan_2022.09%20version_As%20uploaded%20to%20OP%20for%20508%20compliance.pdf) (citing concern about storm surge, extreme rainfall, high winds and power loss on industrial facilities in 100 to 500-year floodplains).

<sup>130</sup> EPA, Mid-Atlantic Region 3, Climate Adaptation Implementation Plan at 27 (Oct. 2022), <https://www.epa.gov/system/files/documents/2022-10/bh508-R03%20CAIP%20%28final%20with%20document%20number%29.pdf>.

<sup>131</sup> Region 2, EPA, Region 2 Climate Adaptation Implementation Plan at 31-32 (Oct. 2022, Revised 2022).

<sup>132</sup> EPA OLEM Climate Adaptation Implementation Plan at 4, [https://www.epa.gov/system/files/documents/2022-10/bh508-OLEM%20CAIP\\_August%202022\\_POST\\_OGCreview\\_9.12.2022.pdf](https://www.epa.gov/system/files/documents/2022-10/bh508-OLEM%20CAIP_August%202022_POST_OGCreview_9.12.2022.pdf).

<sup>133</sup> *Id.*

<sup>134</sup> S. Anenberg & C. Kalman (Milken Inst. of Pub. Health, Geo. Wash. Univ.), Extreme Weather, Chemical Facilities, and Vulnerable Communities in the U.S. Gulf Coast: A Disastrous Combination (Apr. 16, 2019), <https://agupubs.onlinelibrary.wiley.com/doi/full/10.1029/2019GH000197>.

extreme heat, where a chemical plant lost power and there was a concern about the potential for a major ammonia release at the RMP-covered Dyno chemical plant in Oregon.<sup>135</sup>

Third, the result of NaTech incidents, including explosions, fires, and the release of hazardous chemicals, lead to cumulative and compounding consequences to the health and safety of facility workers and public, including toxic chemical exposure. Without a new chemical disaster prevention rule that includes NaTech requirements, communities living near RMP facilities and in climate and natural disaster risk areas will suffer more harm from preventable NaTech disasters.<sup>136</sup> NaTech disasters can cause significant harm to workers and communities. For example, in the wake of Hurricane Harvey, many chemical releases, explosions, and fires occurred at industrial facilities. As a result of Hurricane Harvey and these chemical disasters, communities suffered spikes in unhealthy levels of ozone; releases of toxic air pollutants that can cause cancer, neurological harm, and trouble breathing; and releases of contaminants, including hundreds of thousands to millions of pounds of air pollutants.<sup>137</sup>

B. EPA should add necessary improvements to the natural hazard provisions.

**Mitigation implementation.** Most importantly, EPA should require implementation of all practicable mitigation found in the natural hazard assessment. It is necessary and valuable that EPA is requiring reporting of any mitigation recommendations, and a justification of any not implemented. EPA should *also* include a clear requirement for implementation, to the greatest extent practicable. Voluntary measures alone have been insufficient to assure facilities put in place core protections. EPA's record shows many incidents linked with natural hazards, and the evidence demonstrates the NaTech threat is only increasing.

Yet, EPA does not provide any justification, much less a lawful or rational one, for not requiring implementation of natural hazard mitigation. Commenters in the 2021 listening

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<sup>135</sup> Scott Learn, *Oregon's Largest Fertilizer Plant Dyno Nobel Has Low Explosion Risk, Firefighters Say*, OREGONVILLE (Apr. 25, 2013),

<https://www.oregonlive.com/environment/2013/04/oregons-largest-fertilizer-pla.html>.

<sup>136</sup> Comment submitted by Earthjustice on behalf of Air Alliance Houston et al. at 21-29, Section I.F (Aug. 23, 2018),

<https://www.regulations.gov/comment/EPA-HQ-OEM-2015-0725-1969> (“Harms to Public Health and Safety

Caused by Chemical Disasters”); *see also* R. White, EJHA, *Coming Clean et al., Life at the Fenceline: Understanding Cumulative Health Hazards in Environmental Justice Communities* at 2-5 (Sept. 2018), Environmental Justice Health Alliance, *Coming Clean, Campaign for Healthier Solutions*, <https://new.comingcleaninc.org/assets/media/documents/Life%20at%20the%20Fenceline%20-%20English%20-%20Public.pdf>.

<sup>137</sup> Air Alliance Houston et al., *Comments on Proposed Rollback Rule* at 14-17 (Aug. 23, 2018),

<https://www.regulations.gov/comment/EPA-HQ-OEM-2015-0725-1969>; *see also, e.g.*, HARC,

*Summarizing Hurricane Harvey's Environmental Impacts* (2017),

<https://harcresearch.maps.arcgis.com/apps/MapSeries/index.html?appid=d6b0a3d762ec46ef8ea676f1008f> (for details cited, click on: Air – ozone and toxics, Health & Safety, and About).

sessions called clearly for implementation.<sup>138</sup> The report cited by EPA – *Preventing ‘Double Disasters’* (CPR, UCS & Earthjustice) – calls explicitly for implementation requirements.<sup>139</sup> Yet, EPA does not address direct requirements for implementation much less explain why it has not included these in the rule.

EPA even provides substantial evidence showing how valuable implementation of natural hazard recommendations would be – and cites new guidance from CCPS, developed at the CSB’s recommendation, along with information from the European Commission, illustrating the value of NaTech measures. 87 Fed. Reg. at 53,568 & n.n. 43-44.

In view of the strong evidence showing the value in implementation – of all practicable NaTech mitigation – EPA must require such implementation. The Act requires EPA to assure prevention, detection, response, and harm minimization “to the greatest extent practicable.” 42 U.S.C. § 7412(r)(7)(B). The Act directs EPA to assure prevention as the core objective. *Id.* § 7412(r)(1), (r)(7)(A). To fulfill these obligations, EPA must add implementation requirements into this rule as the agency finalizes it.

Failing to do so would be unlawful, arbitrary and capricious in view of the robust record demonstrating the value in both assessing *and* implementing NaTech mitigation.

**Compliance deadline.** In addition, EPA must clarify the date by which compliance with the natural hazard assessment is required. This should occur as expeditiously as practicable, within one year after the effective date of the final rule, and facilities should be directed to report that they have completed this assessment soon after completion.

Further, the proposal requires owners or operators to include this information in the RMP by four years after the final rule’s effective date. *See* 40 C.F.R. § 68.10(i). 40 C.F.R. § 68.190(b) requires owners or operators to update RMPs at least every five years from the date of its initial submission or most recent required update. EPA must clarify how 40 C.F.R. § 68.190(b) interacts with 40 C.F.R. § 68.10(i) and “assur[e] compliance as expeditiously as practicable.”<sup>140</sup> For example, if the rule is finalized in 2023 and compliance is required by 2027, but 40 C.F.R. § 68.190(b) requires revision of a facility’s RMP by 2025, the current proposal should clarify that the 2025 revised RMP must include the natural hazard assessment.

**Guidance.** EPA should develop additional guidance for assessing natural hazards as soon as possible after issuing the final rule, but the compliance date must not be changed based on when the guidance is issued. EPA should provide technical advice to assist facilities with

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<sup>138</sup> *See, e.g.,* Community In-Power & Devel. Ass’n *et al.* Comments (July 29, 2021), <https://www.regulations.gov/comment/EPA-HQ-OLEM-2021-0312-0170>; EJHA *et al.* Comments (July 2021), <https://www.regulations.gov/comment/EPA-HQ-OLEM-2021-0312-0149>.

<sup>139</sup> UCS *et al., Preventing ‘Double Disasters’* at 3, 13 (July 2021), <https://www.regulations.gov/document/EPA-HQ-OLEM-2022-0174-0072>.

<sup>140</sup> *Id.*; *see also id.* § 7412(r)(7)(B) (requiring EPA to assure regulations are applicable to a stationary source no later than 3 years after the date of promulgation, or 3 years after the date on which a regulated substance present at the source is more than threshold amounts).



assuring full compliance during this first round, and use that experience to inform and draft an effective guidance document.

### C. EPA’s additional requests for comment

Commenters support EPA’s definition of natural hazards. 40 C.F.R. § 68.3; 87 Fed. Reg. at 53,567. Commenters agree that EPA should require sources in areas exposed to heightened risk of natural disasters to conduct hazard evaluations associated with climate or earthquake as a minimum, while also requiring all sources to consider the potential for natural hazards unrelated to climate or earthquake in their specific locations.

As a large area of the country faces various types of natural hazards, many of which are worsening due to climate risk, EPA should not restrict coverage of the new natural hazard provision only to certain facilities or certain geographic areas. It is important for EPA to require this for all of the proposed facilities – at least all Program 2 and 3 as proposed. Given the pace at which NaTech disasters are increasing in frequency and intensity, some areas not currently considered high-risk could become high-risk. Further, natural hazards are essential for RMP facilities to address even if there is no demonstrated link with climate risk locally which may be due to a lack of available data.

That said, if EPA specifies geographic areas most at risk from climate or other natural events by adopting a list of high-risk areas, it should use the list in *Preventing Double Disasters* and in the 2022 GAO Report as a starting point and require regular updates of this list based on newly available data.<sup>141</sup>

Important new data and a climate resiliency tool from NOAA – the Climate Mapping for Resilience and Adaptation portal - should also inform any such list and is a key resource for EPA to provide for facilities to comply with the provisions.<sup>142</sup> The Climate Adaptation Implementation Plans from EPA offices and regions, as cited above, are also valuable resources for EPA and facilities to use in implementing this provision.<sup>143</sup> In addition to this new tool, EPA’s own EJSCREEN mapping tool was recently updated to include a Justice40 indicator, which can be used to identify communities that meet Justice40 criteria.<sup>144</sup> The Justice40

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<sup>141</sup> GAO Chem. Accident Prevention, EPA Should Ensure Regulated Facilities Consider Risks from Climate Change, GAO-22-104494 (Feb. 2022), <https://www.regulations.gov/document/EPA-HQ-OLEM-2022-0174-0072>; see also e.g., Center for Progressive Reform et al., *Preventing “Double Disasters”*: How the U.S. Environmental Protection Agency can protect the public from hazardous chemical releases worsened by natural disasters at 6 (July 2021), <http://progressivereform.org/our-work/energy-environment/preventing-double-disasters/> (“UCS et al., *Preventing “Double Disasters”*”) (attached to EPA-HQ-OLEM-2022-0174-0072); *Statement from CSB Chairman Katherine Lemos on the Lessons from Hurricane Harvey Following Recent Extreme Weather in Houston* (Mar. 4, 2021), available at: <https://inspectioneering.com/news/2021-03-04/9560/statement-from-csb-chairman-katherine-lemos-on-the-lessons-from-hurricane-harvey>.

<sup>142</sup> <https://resilience.climate.gov/>; <https://www.noaa.gov/news-release/biden-administration-launches-portal-to-help-communities-assess-exposure-to-climate-hazards>,

<sup>143</sup> <https://www.epa.gov/climate-adaptation/climate-adaptation-plans>.

<sup>144</sup> See EPA’s Environmental Justice Screening and Mapping Tool (Version 2.1), available at: <https://ejscreen.epa.gov/mapper/> (go to the “places” tab to see the identified Justice40 communities).

initiative is a product of an early commitment made by the Biden-Harris administration to ensure that “at least 40 percent of the overall benefits of certain Federal investments flow to disadvantaged communities that are marginalized, underserved, and overburdened by pollution.”<sup>145</sup> EJSCREEN’s newly released Justice40 mapping layer has the ability to identify disadvantaged communities at the census tract level and includes “proximity to Risk Management Plan (RMP) facilities” as a part of the conditional methodology.<sup>146</sup> EPA should use this resource, in addition to others, to prioritize protection for fence-line communities where action is most needed, in its implementation of this provision.

## 2. POWER LOSS (SECTION IV.A.1.C)

### A. EPA should finalize the power loss provisions with improvements.

Commenters strongly support explicitly requiring Program 2 hazard reviews to address power loss and “safeguards used or needed to control the hazards or prevent equipment malfunction or human error including standby or emergency power systems.” 87 Fed. Reg. at 53,670 (amending 40 C.F.R. § 68.50). Commenters also strongly support explicitly requiring Program 3 process hazard analyses to address “engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases and standby or emergency power systems.” *Id.* (amending 40 C.F.R. § 68.67).

Power loss has caused or contributed to thousands of NRC reported incidents,<sup>147</sup> including chemical disasters, and EPA has recognized that many RMP facilities have reported power loss links with many reportable harm incidents. As the proposed rule explains, power loss can cause chemical leaks, explosions, fires, and spills. Power loss can also damage “the integrity of equipment during subsequent operations,” including safeguards that prevent chemical disasters.<sup>148</sup> Even brief power loss can cause significant damage because some equipment may need to be manually reset, while others may automatically restart.

This amendment is necessary to fulfill EPA’s statutory duty to promulgate rules that provide, “to the greatest extent practicable, for the prevention and detection of accidental releases.”<sup>149</sup> EPA also must finalize the power loss provision because the CSB’s recommendations carry particular weight and EPA must respond to incorporate them or fulfill its statutory obligation to justify not doing so. 42 U.S.C. § 7412(r)(6)(I).<sup>150</sup>

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<sup>145</sup> The White House, Justice40 - A Whole-of-Government Initiative (n.a.), available at: <https://www.whitehouse.gov/environmentaljustice/justice40/>.

<sup>146</sup> Council on Environmental Quality. Climate and Economic Justice Screening Tool: Methodology (n.a), available at: <https://screeningtool.geoplatform.gov/en/methodology> .

<sup>147</sup> 87 Fed. Reg. at 53,569 (citing the National Response Center data on 3,077 reported accidents from 2004–2020 that were associated with power loss).

<sup>148</sup> 87 Fed. Reg. at 53569.

<sup>149</sup> 42 U.S.C. § 7412(r)(7)(B).

<sup>150</sup> See CSB Oct. 2022 Comments, <https://www.regulations.gov/comment/EPA-HQ-OLEM-2022-0174-0166>.

Failing to finalize this requirement would be arbitrary and capricious given that (1) power outages are a known cause of disasters; (2) weather events—the largest source of disruptions to the U.S. electricity grid—are increasing in frequency, severity, and duration;<sup>151</sup> and (3) current guidance and guidance alerts have failed to abate power loss-induced disasters. As guidance and alerts alone have failed, EPA must create an explicit requirement in the regulations.

Commenters strongly support requiring air pollution control or monitoring equipment associated with prevention and detection of accidental releases from RMP-regulated facilities to have standby or backup power. 87 Fed. Reg. 53,571. Failing to finalize this requirement would be arbitrary and capricious because failed backup generators have caused some of the most damaging chemical disasters in the United States, including the Arkema disaster.<sup>152</sup> When that facility’s generator failed, nine chemical containers holding 500,000 pounds of volatile organic peroxides caught on fire.<sup>153</sup> This requirement would also address the issue of air monitoring and control equipment being “removed from service before natural disasters to potentially prevent damage to equipment or, conceivably in some cases, evade monitoring requirements.”<sup>154</sup>

**B. EPA should add necessary improvements into the power loss provisions.**

**Mitigation implementation.** Most importantly, EPA should require implementation of all practicable mitigation found in the power loss assessment. In particular, EPA should require implementation of all practicable power loss mitigation – including back-up power for all equipment connected to RMP processes that could cause an RMP chemical release. It is necessary and valuable that EPA is requiring reporting of any power loss mitigation recommendations, and a justification of any not implemented but EPA should *also* include a clear requirement for implementation, to the greatest extent practicable. Voluntary measures alone have been insufficient to assure facilities put in place core protections. EPA’s record shows many incidents linked with power loss, and the evidence demonstrates that due to climate risks the threat of power loss is only increasing.

Yet, EPA does not provide any justification, much less a lawful or rational one, for not requiring implementation of power loss mitigation. Commenters in the 2021 listening sessions called clearly for implementation.<sup>155</sup> The report cited by EPA – *Preventing ‘Double Disasters’* (CPR, UCS & Earthjustice) – calls explicitly for implementation requirements, including

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<sup>151</sup>87 Fed. Reg. at 53,570.

<sup>152</sup> CSB, Investigation Report, Organic Peroxide Decomposition, Release, and Fire at Arkema Crosby Following Hurricane Harvey Flooding (Aug. 29, 2017), Report No. 2017-08-I-TX (May 2018), <https://www.csb.gov/arkema-inc-chemical-plant-fire/>.

<sup>153</sup> UCS, Community Impact: Chemical Safety, Harvey, and Delay of the EPA Chemical Disaster Rule at 4 (Oct. 17, 2017), <http://www.ucsusa.org/HarveyRMP>.

<sup>154</sup> 87 Fed. Reg. at 53,571.

<sup>155</sup> See, e.g., Community In-Power & Devel. Ass’n *et al.* Comments (July 29, 2021), <https://www.regulations.gov/comment/EPA-HQ-OLEM-2021-0312-0170>; EJHA *et al.* Comments (July 2021), <https://www.regulations.gov/comment/EPA-HQ-OLEM-2021-0312-0149>.

requirements for back-up power generally.<sup>156</sup> Yet, EPA does not address direct requirements for implementation much less explain why it has not included these in the rule.

EPA even provides substantial evidence showing how valuable implementation of natural hazard recommendations, including power loss mitigation, would be – and cites new guidance from CCPS, developed at the CSB’s recommendation, along with information from the European Commission, illustrating the value of power loss mitigation measures. 87 Fed. Reg. at 53,569-71; *see also id.* at 53,568 & n.n. 43-44.

In view of the strong evidence showing the value in implementation – of all practicable NaTech mitigation, including for power loss – EPA must require such implementation. The Act requires EPA to assure prevention, detection, response, and harm minimization “to the greatest extent practicable.” 42 U.S.C. § 7412(r)(7)(B). The Act directs EPA to assure prevention as the core objective. *Id.* § 7412(r)(1), (r)(7)(A). To fulfill these obligations, EPA must add implementation requirements into this rule as the agency finalizes it.

Failing to do so would be unlawful, arbitrary and capricious in view of the robust record demonstrating the value in both assessing *and* implementing NaTech and power loss mitigation.

**Compliance deadline.** Similarly, as discussed for natural hazards above, EPA must clarify the date by which compliance with the power loss assessment is required and must “assur[e] compliance as expeditiously as practicable.”<sup>157</sup> This should occur within one year after the effective date of the final rule, and facilities should be directed to report that they have completed this assessment soon after completion.

The proposal requires owners or operators to comply by four years after the final rule’s effective date. *See* 40 C.F.R. § 68.10(i). 40 C.F.R. § 68.190(b) requires owners or operators to update RMPs at least every five years from the date of its initial submission or most recent required update. EPA must clarify how 40 C.F.R. § 68.190(b) interacts with 40 C.F.R. § 68.10(i) and “assur[e] compliance as expeditiously as practicable.”<sup>158</sup> For example, if the rule is finalized in 2023 and compliance is required by 2027, but 40 C.F.R. § 68.190(b) requires revision by 2025, the current proposal should clarify that the 2025 revised RMP must comply.

### C. EPA requests for additional comment: Back-up Power for Monitors

Commenters strongly support requiring air pollution control or monitoring equipment associated with prevention and detection of accidental releases from RMP-regulated processes to have standby or backup power and any potential safety issues associated with it. 87 Fed. Reg. at

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<sup>156</sup> UCS *et al.*, *Preventing ‘Double Disasters’* at 3, 13 (July 2021), <https://www.regulations.gov/document/EPA-HQ-OLEM-2022-0174-0072>.

<sup>157</sup> *Id.*; *see also id.* § 7412(r)(7)(B) (requiring EPA to assure regulations are applicable to a stationary source no later than 3 years after the date of promulgation, or 3 years after the date on which a regulated substance present at the source is more than threshold amounts).

<sup>158</sup> *Id.*; *see also id.* § 7412(r)(7)(B) (requiring EPA to assure regulations are applicable to a stationary source no later than 3 years after the date of promulgation, or 3 years after the date on which a regulated substance present at the source is more than threshold amounts).

53,571. Yet the proposed amendments to 40 C.F.R. 68.50 and 68.67 are extremely vague regarding this requirement – stating only:

- for Program 2: that facilities “shall identify . . . [t]he safeguards used or needed to control the hazards or prevent equipment malfunction or human error **including standby or emergency power systems.**” Proposed 40 C.F.R. § 68.50(a)(3) (emphasis added);
- for Program 3: that facilities “shall address... “[engineering and administrative controls applicable to the hazards and their interrelationships such as appropriate application of detection methodologies to provide early warning of releases **and standby or emergency power systems.**” Proposed 40 C.F.R. § 68.67(c)(3) (emphasis added).

The amendments must clearly require standby or backup power for the relevant air pollution control and monitoring equipment. Failing to do so would not satisfy the Act’s directive to assure prevention, detection, response, and harm minimization “to the greatest extent practicable,” and would be arbitrary and capricious. *See* 42 U.S.C. § 7412(r)(7)(A), (B).

Additionally, EPA should require back-up power generally, as discussed in Parts 1-2 above, and fence-line monitoring as discussed in Part 15 below, because the stakes are too high to rely on only voluntary implementation, guidance or trade association best practices. As EPA stated, “[a] large-scale natural disaster may threaten multiple RMP facilities in a community simultaneously, leaving communities to endure the direct effects of a natural disaster without receiving warning of associated chemical releases.”<sup>159</sup> Assuring fence-line monitoring and back-up power generally would go farther toward protecting communities in this likely scenario than just back-up power for existing monitors.

### 3. STATIONARY SOURCE SITING (SECTION IV.A.1.D)

- A. EPA should finalize the stationary source siting evaluation provisions with improvements.

Commenters strongly support requiring a stationary source siting evaluation in Program 2 hazard reviews and Program 3 process hazard analyses. 87 Fed. Reg. at 53,571 (amending § 68.50(a) (Program 2 processes) and 68.67(a)–(c) (Program 3 processes)). The proposed rule defines “stationary source siting evaluation” as “placement of processes, equipment, buildings within the facility, and hazards posed by proximate facilities, and accidental release consequences posed by proximity to the public and public receptors.”<sup>160</sup> Failing to require stationary source siting analysis would fail to satisfy the Act’s prevention goal “to the greatest extent practicable,” and would be arbitrary and capricious given strong evidence that how a facility and equipment are sited can exacerbate the severity of chemical disasters and continue to threaten process safety under the current rule.

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<sup>159</sup> 87 Fed. Reg. at 53,571.

<sup>160</sup> *Id.* at 53,574.

Numerous chemical disasters, including those to which EPA cited, show that stationary source siting can exacerbate chemical disasters. 87 Fed. Reg. 53,571-72. The lack of sufficient distance between a source boundary and residential areas or infrastructure is a “significant factor” in the severity of chemical disasters. *Id.* at 53,571. Additionally, an initial release from a source can trigger a subsequent release from nearby processes. Several regulatory programs acknowledge the value and effectiveness of requiring siting, including the OSHA PSM standard and RMP rule.<sup>161</sup> Industry guidance on siting shows an acknowledgment that industry can and should consider siting.<sup>162</sup> The value and effectiveness of siting is demonstrated by CSB recommendations and industry sources calling for it. Numerous enforcement actions by EPA and OSHA involving siting issues show that “issues of siting continue to threaten process safety” and that industry guidance is insufficient.<sup>163</sup>

B. EPA should add necessary improvements into the stationary source siting provisions.

The amendments must include specific important components of an adequate stationary source siting evaluation, including a consideration of cumulative impacts for facilities with other RMP facilities located in their worst case scenario zones. EPA should require implementation of stationary source siting recommendations found in the analysis “to the greatest extent practicable” to assure protection for fence-line communities.

EPA states that “a breadth of guidance” provides “adequate information available for facilities to comply with the proposed text.”<sup>164</sup> EPA should make as much clear as possible to ensure appropriate scope, risk evaluation, and assessment of impacts. By failing to specify what constitutes an evaluation in the rule, EPA allows facilities to rely on a potentially inadequate evaluation. A clear explanation of essential components, and EPA oversight, would make it easier for both facilities to understand and fulfill their obligations and for EPA to enforce them. EPA should not wait for guidance to fail to clarify the rule.

**Compliance deadline.** Similarly, as discussed for natural hazards and power loss evaluations above, EPA must clarify the date by which compliance with the power loss assessment is required and must “assur[e] compliance as expeditiously as practicable.”<sup>165</sup> This should occur as expeditiously as practicable, within one year after the effective date of the final rule, and facilities should be directed to report that they have completed this assessment soon after completion.

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<sup>161</sup> PHA (29 C.F.R. 1910.119(e)(3)(v), and 40 C.F.R. 68.67(c)(5)); OSHA, *Final Rule on Process Safety Management of Highly Hazardous Chemicals; Explosives and Blasting Agents*, 29 CFR part 1910 (1992), <https://www.osha.gov/laws-regs/federalregister/1992-02-24>.

<sup>162</sup> 87 Fed. Reg. 53,572 (citing several examples of industry guidance on siting considerations).

<sup>163</sup> 87 Fed. Reg. at 53,573.

<sup>164</sup> *Id.* at 53,574.

<sup>165</sup> *Id.*; see also *id.* § 7412(r)(7)(B) (requiring EPA to assure regulations are applicable to a stationary source no later than 3 years after the date of promulgation, or 3 years after the date on which a regulated substance present at the source is more than threshold amounts).

The proposal requires owners or operators to comply by four years after the final rule's effective date. *See* 40 C.F.R. § 68.10(i). 40 C.F.R. § 68.190(b) requires owners or operators to update RMPs at least every five years from the date of its initial submission or most recent required update. EPA must clarify how 40 C.F.R. § 68.190(b) interacts with 40 C.F.R. § 68.10(i) and “assur[e] compliance as expeditiously as practicable.”<sup>166</sup> For example, if the rule is finalized in 2023 and compliance is required by 2027, but 40 C.F.R. § 68.190(b) requires revision by 2025, the current proposal should clarify that the 2025 revised RMP must comply.

#### **4. HAZARD EVALUATION RECOMMENDATION INFORMATION AVAILABILITY (SECTION IV.A.1.E)**

##### **A. EPA proposal**

Commenters strongly support requiring RMPs under 40 C.F.R. sections 68.170(e)(7) and 68.175(e)(8) to report “[r]ecommendations declined from natural hazard, power loss, and siting hazard evaluations and justifications.” 87 Fed. Reg. at 53,615 (amending 40 C.F.R. §§ 68.170(e)(7) (Program 2) and 68.175 (Program 3)). EPA has authority and a responsibility to issue these amendments because requiring owners to consider recommendations resulting from hazard evaluations necessarily promotes the prevention, detention, and mitigation of chemical disasters.<sup>167</sup> This is important information to include in the RMP. Ensuring “that communities, local planners, local first responders, and the public have appropriate chemical facility hazard-related information is critical to the health and safety of responders and the local community”<sup>168</sup> and should “motivate owners and operators to improve their safety in response to community pressure and oversight.”<sup>169</sup> Workers and the public have a right to know about chemical disasters and what prevention and mitigation measures facilities implement or decline and why.

Failing to finalize this amendment would be arbitrary and capricious because, without it, owners and operators can continue to ignore recommendations from hazard evaluations with no justification, even if the recommendations are feasible and effective. EPA must assure prevention occurs “to the greatest extent practicable” under section 7412(r)(7) and requiring reporting of hazard mitigation recommendations implemented, and any not implemented with a detailed justification, is critical to assure compliance with this provision.

##### **B. Necessary improvements**

For all of the above – natural hazards, power loss, and stationary source siting – EPA should require not just a justification for recommendations not implemented, but must require

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<sup>166</sup> *Id.*; *see also id.* § 7412(r)(7)(B) (requiring EPA to assure regulations are applicable to a stationary source no later than 3 years after the date of promulgation, or 3 years after the date on which a regulated substance present at the source is more than threshold amounts).

<sup>167</sup> 42 U.S.C. § 7412(r)(7)(A), (B).

<sup>168</sup> 87 Fed. Reg. 53,574.

<sup>169</sup> *Id.* at 53,572 (“Communities are affected not only by the proximity of accidental releases to offsite receptors (*e.g.*, people, infrastructure, environmental resources) near the facility boundary, but also by the increased likelihood of subsequent releases from other nearby processes compromised by the initial release.”)

implementation to the greatest extent practicable, as discussed above in Parts 1-3 of these comments.

In addition and in the alternative, EPA must require owners and operators who report and justify any declined recommendations related to natural hazards, power loss, or stationary siting from the Program 2 hazard reviews and Program 3 PHAs to include not only documentation that one of the four justifications is met, but also a narrative explaining how the documentation shows that the justification has been met. That information is essential for EPA, the public, and other stakeholders to be able to understand the basis for not implementing and to attempt to help solve any issues with implementation through follow-up action.

Like OSHA, EPA should require owners and operators to “document, in writing and based upon adequate evidence,” that one or more of the justifications is true.<sup>170</sup> The current proposal requires owners and operators to “document that one or more of the following conditions is true” without sufficient explanation of what kind of documentation is required.<sup>171</sup>

### C. Other EPA requests for additional comment

Commenters support using only OSHA’s four categories for declining to adopt a PHA recommendation. The four categories allow owners and operators to decline recommendations if they are: (1) based on material inaccuracies, (2) “not necessary to protect the health and safety of the employer’s own employees, or the employees of contractors,” (3) achievable through an alternative method, including a cheaper or otherwise preferred method, or (4) infeasible. 87 Fed. Reg. at 53,615. EPA should not include alternative categories or a catch-all “other” category because they would dilute the purpose of the amendment by allowing facilities to decline recommendations for potentially insufficient reasons. Additionally, requiring owners and operators to choose one of four pre-selected categories makes it easier for owners and operators to understand and comply with their duties. It also makes the amendment easier for EPA to administer and track. EPA should not just allow a link to an RMP, in lieu of explaining in narrative form which justification they met, or this information may not be clearly reported. 87 Fed. Reg. 53,57. Instead, EPA must require owners and operators to check one of the four categories and provide a narrative justification and evidence showing that the category applies. It is important both to have online transparency *and* information explaining any justification provided.

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<sup>170</sup> OSHA, Process Safety Management of Highly Hazardous Chemicals—Compliance Guidelines and Enforcement Procedures, 29 C.F.R. § 1910.119 Replacement Page B-22 (Sept. 13, 1994), [https://www.osha.gov/sites/default/files/enforcement/directives/CPL02-02-045\\_CH-1\\_20150901.pdf](https://www.osha.gov/sites/default/files/enforcement/directives/CPL02-02-045_CH-1_20150901.pdf).

<sup>171</sup> See 87 Fed. Reg. at 53,574.



## 5. SAFER TECHNOLOGY AND ALTERNATIVES ANALYSIS (STAA) (SECTION IV.A.2.A)

### A. EPA must finalize the STAA proposal with improvements.

Commenters strongly support EPA's recognition that inherently safer measures are an essential prevention requirement to address in this rulemaking. It is important that for certain refineries and chemical manufacturing facilities, EPA will require an analysis of "safer technology and alternative risk management measures applicable to eliminating or reducing risk from process hazards." Proposed 40 C.F.R. § 68.67(c)(9).<sup>172</sup> We also support EPA's proposal to require a facility to document and determine "the practicability" of IST, and submit to EPA the "inherently safer technology or design measures implemented since the last PHA, if any, and the technology category (substitution, minimization, simplification and/or moderation)" as part of the RMP. § 68.175(e)(7). It is important, as EPA proposes, that facilities must share this information with workers and labor representatives, and that the team evaluating this must include "members with expertise in the process being evaluated" and at least one member who works in the process. 68.67(c)(9)(ii). Each of these components of the proposal is essential and provides benefits, as EPA's proposal and RIA demonstrate.

For example, the practicability assessment is the part of an evaluation that assures a facility actually considers whether and what available IST could be implemented, and how it could be implemented for that particular facility – and requiring this as well as the assessment of IST may be what most tips the balance toward implementation, and provides workers, EPA, and the public with information needed to assist with and support implementation. Performing the practicability assessment provides additional benefits by increasing the available information on IST for a particular facility and type of facility that, as EPA recognizes, makes it more likely that implementation will occur there and at other types of facilities. There is also value in this information, alone, for workers and communities who can raise awareness about and work for implementation to happen, or to happen more quickly than it might otherwise.

EPA has properly supported the inclusion of the 590 facilities proposed for coverage and has shown that this is necessary under Section 7412(r)(7)(A), (B) (although as discussed below EPA has not demonstrated it may lawfully or rationally limit coverage to only these facilities). The record shows that these include highly hazardous facilities with serious incident problems, which is a relevant factor though it should not be the sole determining factor (as discussed below). The refinery and chemical manufacturing sectors have long had the worst incident records and rates across the sectors. CIDA *et al.* July 2021 comments at 16 tbl.2 (citing 2017 Rule) (attached).

As another important and relevant factor, these are sectors that use a broad array of highly hazardous chemicals and thus pose severe hazards to communities, workers, and first responders. The record shows the harm that has occurred at these types of sources due to RMP chemical releases – fires, explosions, even a 10-mile radius evacuation zone at the Husky

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<sup>172</sup> NAICS codes 324, 325 located within 1 mile of another RMP-regulated facility with the same processes and for any refineries with HF alkylation processes regardless of proximity to another such facility).

Refinery in 2017.<sup>173</sup> Both EPA and the Chemical Safety Board have well documented the importance of preventing chemical disasters at refineries and chemical manufacturers in this record, and in prior CSB investigations.<sup>174</sup> The extreme mortal danger posed by HF as discussed in the USW *A Risk Too Great*, recent CSB investigations, and state governmental comments amply supports ensuring that refineries using this chemical must perform STAA.<sup>175</sup>

Also relevant, these are also industry sectors where safer technologies are available and where some facilities have successfully implemented those safer technologies, including elimination of the most hazardous chemicals.<sup>176</sup>

And, these are sectors that threaten workers and nearby fenceline communities – and the threat to the health and safety of workers and fenceline communities is a relevant and important factor under the statute and under this Administration’s policy objectives.

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<sup>173</sup> CSB, Husky Refinery Factual Investigation Update (Dec. 2018), [https://www.csb.gov/assets/1/20/husky\\_factual\\_update\\_-\\_2.pdf?16594](https://www.csb.gov/assets/1/20/husky_factual_update_-_2.pdf?16594); CSB, Husky Refinery Explosion and Fire on Apr. 26, 2018 Factual Investigation Update (Aug. 2018), [https://www.csb.gov/assets/1/6/husky\\_factual\\_update.pdf?16317](https://www.csb.gov/assets/1/6/husky_factual_update.pdf?16317).

<sup>174</sup> See, e.g., See, e.g., CSB Comment Letter to EPA at 6 (July 20, 2018), [https://www.csb.gov/assets/1/6/csb\\_comments\\_epa\\_rmp\\_20180720.pdf](https://www.csb.gov/assets/1/6/csb_comments_epa_rmp_20180720.pdf); CSB Comment Letter to EPA at 4-5 (May 10, 2016), <https://www.regulations.gov/comment/EPA-HQ-OEM-2015-0725-0428>; CSB Comment Letter to EPA at 13-17 (Nov. 5, 2014), <https://www.regulations.gov/comment/EPA-HQ-OEM-2014-0328-0689>; see also e.g., CSB, Tesoro Refinery Investigation Report (May 2014), available at <https://www.csb.gov/tesoro-refinery-fatalexplosion-and-fire/>; CSB, Chevron Final Report at 17 (“Using inherently safer design concepts to eliminate the hazard . . . will prevent future similar failures in refineries.”); CSB, Interim Investigation Report: Chevron Richmond Refinery Fire at 45 (Aug. 2012), <https://www.csb.gov/chevron-refinery-fire/> (“Chevron Interim Report”) (“Chevron and other process plant’s implementation of inherently safer systems to the greatest extent feasible would provide a higher degree of protection from incidents like the one that occurred on August 6, 2012.”); CSB, Final Report on ExxonMobil Torrance Refinery Fire and Explosion on Feb. 18, 2015 (May 3, 2017), <https://www.csb.gov/exxonmobil-refinery-explosion-/>.

<sup>175</sup> See, e.g., USW, *A Risk Too Great* (2013), <https://www.usw.org/workplaces/oil/oil-reports/A-Risk-Too-Great.pdf>. The Chevron Salt Lake City refinery has now phased out use of hydrofluoric acid and shifted to use of a liquid alkylation technology known as ISOALKY developed by Chevron and licensed to Honeywell. See CSB PES Investigation Report (2022); see also A. Doyle, Safer and more efficient alkylation process now at commercial scale, *The Chem. Eng’r* (May 5, 2021), <https://www.thechemicalengineer.com/news/safer-and-more-efficient-alkylation-process-now-at-commercial-scale/>; see also Chevron and Honeywell Announce Start-up of World’s First Commercial ISOALKY™ Ionic Liquids Alkylation Unit (Apr. 13, 2021), <https://www.chevron.com/stories/chevron-and-honeywell-announce-start-up-of-isoalky-ionic-liquids-alkylation-unit>. And, an Oklahoma refinery is also in the process of phasing out HF and shifting to KBR Solid Acid Alkylation Technology. See CVR Energy Proceeds with KBR on Second Phase Scope for Alkylation Revamp Project (Feb. 4, 2021), <https://www.prnewswire.com/news-releases/cvr-energy-proceeds-with-kbr-on-second-phase-scope-for-alkylation-revamp-project-301221805.html>.

<sup>176</sup> Paul Orum, Comment on EPA’s Risk Management Planning Program, Docket ID No. EPA-HQ-OLEM-2021-0312 (June 16, 2021), at 6-7, [EPA-HQ-OLEM-2021-0312-0014 \(attached\)](https://www.regulations.gov/comment/EPA-HQ-OLEM-2021-0312-0014); see also Coalition to Prevent Chemical Disasters 2016 comments at 6-7 (citing examples of shifting to less dangerous chemicals, including shifts away from chlorine) (attached).

Consequently, these are also the types of facilities that other state and local governments have successfully regulated with IST provisions. Those local and state requirements have demonstrated proven results in preventing harm to workers and communities.<sup>177</sup>

The following state and local jurisdictions have implemented a version of IST requirements that EPA should cite and rely on here:

- Contra Costa County (1998)
- Richmond, CA (2013)
- New Jersey (1988)
- California, in its refinery rule (Cal. ARP Program 4) (Oct. 1, 2017).
- Jefferson County, KY Air Pollution Control District (May 2021).<sup>178</sup>

<b>Table 4. State and Local Jurisdictions’ Inherently Safer Requirements to Eliminate or Reduce Hazards (i.e., methods to reduce potential consequences)</b>	
<b>California</b>	<b>IST:</b> “an approach to safety that focuses on eliminating or reducing the hazards . . . , permanent and inseparable from the material or operation. . . compared to a process with only passive, active, and procedural safeguards.” CAL. CODE REGS. tit. 19, § 2735.3(cc). “to reduce each hazard to the greatest extent feasible” and “effectively reduce remaining risks” using other safeguards. § 2762.13.
<b>Contra Costa/Richmond *</b>	<b>IST:</b> “feasible alternative . . . meant to eliminate, minimize, or reduce the risk of a major chemical accident or release by modifying a process rather than adding external layers of protection.” Contra Costa County, Cal., Ordinances ch. 450 § 8.014(g). “root cause analysis”; “select and implement each inherently safer system . . . to the greatest extent feasible and as soon as administratively practicable. . . not [] based solely on evidence of reduced profits or increased costs.” § 8.016(i).

<sup>177</sup> See CIDA *et al.* Comments at 33-35 (July 29, 2021),

<sup>178</sup> All are attached in the Appendix to these comments.

New Jersey	<p><b>IST:</b> minimize or eliminate the potential for an Extraordinarily Hazardous Substance release. N.J. ADMIN. CODE § 7:31-1.5(a).</p> <ul style="list-style-type: none"> <li>Reducing the amount of EHS material that potentially may be released; Substituting less hazardous materials; using EHSs in the least hazardous process conditions or form; and designing equipment and processes to minimize the potential for equipment failure and human error. N.J. ADMIN. CODE § 7:31-4.12.</li> <li>Feasibility</li> </ul> <p><b>Risk reduction:</b> identifies the risk reduction measures, recommends corrective actions, and provides for scheduling and implementation of remedial actions. N.J. ADMIN. CODE § 7:31-1.5(a).</p> <ul style="list-style-type: none"> <li>“recommendations resulting from the [incident] investigation to prevent a recurrence.” § 7:31-4.1(c).</li> <li>“feasible risk reduction measures” and justifications. § 7:31-4.2.</li> <li>“recommendations to reduce risks”; remedial actions and alternatives to correct the deficiencies. § 7.31-9.5.</li> </ul>
Massachusetts	<p><b>Toxics Use Reduction:</b> “reduce, avoid, or eliminate the use of toxic or hazardous substances . . . , so as to reduce . . . , without shifting risks . . . .” 310 MASS. CODE REGS. 50.10:</p> <ul style="list-style-type: none"> <li>“Input substitution, product reformulation, production unit redesign or modification, production unit modernization, improved operation and maintenance of production unit equipment and methods, recycling, reuse, or extended use of toxics.” <i>Id.</i></li> <li>Requirements for developing toxics use reduction plans, <i>id.</i> 50.40-50.49: <ul style="list-style-type: none"> <li>Notify and solicit comments from employees</li> <li>Policy to encourage reduction</li> <li>“[E]valuate the technical feasibility”</li> </ul> </li> <li>“a statement of facility-wide management policy regarding toxics use reduction.” MASS. ANN. LAWS CH. 21I, § 11.</li> </ul>

\* Contra Costa and Richmond Ordinances are identical except that Richmond includes “petroleum refinery.”<sup>179</sup>

All of the above requirements are stronger than the EPA 2017 RMP Amendments’ provisions and stronger than the EPA 2019 RMP rule which included no IST provisions at all. The State of Washington is in the process of passing a rule similar to California’s.<sup>180</sup> An additional county (Jefferson Co., Kentucky) also recently implemented a version of the IST

<sup>179</sup> See Richmond ordinance § 6.43.050(w) and 6.43.080.

<sup>180</sup> J. Allison, *State working to update oil refinery safety rules* (June 2, 2019), [https://www.goskagit.com/news/local\\_news/state-working-to-update-oil-refinery-safety-rules/article\\_81976a21-ad9a-54e3-bd0e-bc9f043d32cf.html](https://www.goskagit.com/news/local_news/state-working-to-update-oil-refinery-safety-rules/article_81976a21-ad9a-54e3-bd0e-bc9f043d32cf.html); see <https://lni.wa.gov/safety-health/grants-committees-partnerships/advisory-committees/sh-comimttees-process-safety-management>.

language – making that Kentucky county’s rules stronger than the 2019 RMP rule, though not strong enough as it does not add any protections from existing facilities.<sup>181</sup>

As further new evidence, as NJWEC discussed in their testimony, citing 2022 data from the NJDEP, from 2016 to mid-2021 in New Jersey:

- Approximately 40% of the 91 facilities covered by the state’s program stated that they had implemented or scheduled to implement one or more safety measures after conducting their most recent review. (In addition to measures adopted before 2016).
- While 70 of the 118 safety measures implemented or scheduled were in chemical production or oil refining, 48 safety measures were implemented or scheduled in other sectors, including ammonia refrigeration; and water/wastewater treatment.<sup>182</sup>

EPA’s proposed requirement to report implemented STAA is essential to finalize. Increasing transparency on IST will improve safety and support accountability and boost implementation of practicable IST, just as state and local rules have done.

Commenters also support EPA’s proposed plan to create an STAA “technology transfer” clearinghouse. 87 Fed. Reg. at 53,579. This will inform EPA’s ongoing regulatory and enforcement efforts, those of state and local governments and provide valuable information to communities seeking to advocate for transition to safer methods of operation. The public accessibility of available safer technologies will also increase the likelihood that and speed with which facilities will implement inherently safer methods of operating.

EPA’s proposal to require facilities to perform and report on STAA fully comports with its statutory authority under section 112(r). EPA’s governing statute requires EPA to “prevent the accidental release and to minimize the consequences of any such release” of an RMP chemical. 7412(r). STAA is an example of a prevention and harm minimization method that embodies the statute’s core objective.

Each specific regulatory provision within Section 112(r)(7) also fully authorizes the STAA requirements. Section 7412(r)(7)(A) authorizes EPA to promulgate “release prevention”

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<sup>181</sup> Jefferson Co. Ky requires consideration of “inherently safer technology or design” which means “risk management measures that minimize the use of regulated substances, substitute less hazardous substances, moderate the use of regulated substances, or simplify covered processes in order to make accidental releases less likely, or the impacts of such releases less severe (Jefferson County, Ky., Regulation 5.15 § 1.1.22). The county requires new petroleum refineries, chemical plants and pulp and paper mills to “consider, in the following order of preference inherently safer technology or design, passive measures, active measures, and procedural measures” (Jefferson County, Ky., Regulation 5.15 § 4.2.3.8.1) and to determine the practicability by April 21, 2025 (Jefferson County, Ky., Regulation 5.15 § 4.2.3.8; Jefferson County, Ky., Regulation 5.15 § 1.2.4.3).

<sup>182</sup> NJWEC Testimony at 1-2 (citing NJDEP Inherently Safer Technology (IST) Implementation Summary/Update, July 26, 2022, New Jersey Department of Environmental Protection, [https://www.nj.gov/dep/enforcement/tcpa/downloads/IST\\_SUMWEB.pdf](https://www.nj.gov/dep/enforcement/tcpa/downloads/IST_SUMWEB.pdf); [https://www.nj.gov/dep/enforcement/tcpa/downloads/ist\\_summary\\_2022\\_update\\_7-26-22.pdf](https://www.nj.gov/dep/enforcement/tcpa/downloads/ist_summary_2022_update_7-26-22.pdf)) (attached).

requirements that may include steps like those required by the STAA provisions: “monitoring, record-keeping, reporting,” as well as substantive safety actions like “training, vapor recovery, secondary containment, and other design, equipment, work practice, and operational requirements.” 7412(r)(7)(A). The safer technology alternative assessment and reporting requirements include assessing and reporting on precisely the types of measures listed in this provision – and this provision would also fully authorize requiring implementation of inherently safer technology.

In addition, section 7412(r)(7)(B)(i) directs EPA to promulgate regulations that “provide, to the greatest extent practicable, for the prevention and detection of accidental releases of regulated substances and for response to such releases by the owners and operators of the sources of such releases.” STAA is both a core prevention measure and a reasonable response to a prior release, and falls well within this authority. Specifically, this provision not only authorizes but directs EPA to ensure such regulations “cover the use, operation, repair, replacement, and maintenance of equipment to monitor, detect, inspect, and control such releases, including training...” *Id.* Again, this covers the assessment and implementation of technology, chemical, and process changes that would advance prevention and would “control” hazardous releases.

Further, Section 7412(r)(6)(I) requires EPA to respond to recommendations of the Chemical Safety Board, including through a rulemaking, and to explain its response. The CSB has long recommended that EPA require consideration of IST, further bolstering EPA’s authority for this action.<sup>183</sup> EPA previously acknowledged that adopting STAA responds positively and appropriately to the CSB’s recommendation, and in this rulemaking again, EPA recognizes that “the expert views of CSB” on this issue warrant requiring STAA. 87 Fed. Reg. at 53,576, 53,579.

Not only is EPA authorized to issue the STAA provisions, but failing to finalize the STAA measures would violate the Act and would be arbitrary and capricious, because prevention is the central objective of section 112(r)(7)(A) and (B). Taking action to ensure that a chemical can never be released, because it is no longer present at the facility, or that other safer methods are used to operate are the best possible ways to prevent harm, even if an incident occurs.

Many of the same justifications for EPA’s correct decision to require STAA in the 2017 Rule continue to apply, as EPA has acknowledged here. 87 Fed. Reg. at 53,576, 53,579. By contrast, the Trump EPA rescinded these provisions due to an improper and incomplete analysis of incident data and a determination that targeted enforcement would resolve the problem.<sup>184</sup>

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<sup>183</sup> See, e.g., CSB, Fire and Explosions at Philadelphia Energy Solutions Refinery Hydrofluoric Acid Alkylation Unit at 80 (June 21, 2019), No. 2019-04-I-PA (published Oct. 11, 2022), <https://www.csb.gov/philadelphia-energy-solutions-pes-refinery-fire-and-explosions-/>; see also CSB, Investigation Report: Catastrophic Rupture of Heat Exchanger, Tesoro Anacortes Refinery, Anacortes, Washington, April 2, 2010, Report No. 2010-08-I-WA (May 2014), [http://www.csb.gov/assets/1/7/Tesoro\\_Anacortes\\_2014-May-01.pdf](http://www.csb.gov/assets/1/7/Tesoro_Anacortes_2014-May-01.pdf).

<sup>184</sup> AAH *et al.*, Reconsideration Petition (2020) & attachments (attached).

In this rule, EPA has carefully evaluated current information and has properly acknowledged and supported its change in course back to the path which the agency had properly justified. All that is needed to restore STAA and to strengthen the provisions, are the reasons EPA has given in this record, that the agency has shown it believes to be better than the Trump rollback rule, based on well-supported factual findings and other evidence. *See Air Alliance Houston v. EPA*, 906 F.3d 1049, 1066 (D.C. Cir. 2018); *see also Fox*, 556 U.S. at 515. The D.C. Circuit previously struck down the Trump EPA’s illegal and arbitrary delay of the 2017 Rule, due to the lack of any such reason. *Id.* The court also made clear that it can do what it is now doing: “EPA retains the authority under Section 7412(r)(7) to substantively amend the programmatic requirements [of the RMP] subject to arbitrary and capricious review.” *Id.* Thus, EPA has full authority to change course and take the lawful, evidence-based approach in this rulemaking on the STAA and other provisions. As the Supreme Court has recognized, agencies may revisit a regulation under their statutory authority due to a policy change as long as the changes are “permissible under the statute, . . . there are good reasons for [them]” and “the agency *believes* [them] to be better.” *Fox v. FCC*, 556 U.S. 502, 515 (2009).

Industry has previously suggested that to show STAA can be used in a rule, there must be some demonstration that it has prevented any incident from happening in the first place. There is evidence that STAA is effective in preventing incidents, as well as hazardous releases – by eliminating or avoiding a hazard.<sup>185</sup> But EPA need not find that STAA has prevented incidents to find it is an effective RMP tool and justify requiring this. Rather, proving a negative, or proving a preventative measure will work before EPA implements the specific proposal is not what the Clean Air Act or administrative law requires – particularly when the hazards and risks are so severe.

Further, by definition, implementing safer technologies, chemicals, or processes would make a facility safer from harm due to any type of incident that might occur. For example, once a hazard is eliminated or a safer method is put in place, even if a storm hits, or some unpredictable error or incident occurs (or even an intentional act), the use of inherently safer technologies avoids as much, or any, harm from resulting from that incident. That is based on the fact that if a chemical does not exist at a site, it cannot leak or catch on fire. Similarly, if other safer measures are put in place to contain or better manage a chemical process, they provide at least some insurance that the same level of harm could not occur as would be possible without those safeguards. For example, inspecting, repairing and replacing aging infrastructure or equipment that is prone to deterioration, corrosion, leaks, or other problems over time will prevent malfunctions and other problems.<sup>186</sup> Similarly, requiring training of all workers and

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<sup>185</sup> *See, e.g.*, NJDEP Inherently Safer Technology (IST) Implementation Summary/Update, July 26, 2022, New Jersey Department of Environmental Protection, [https://www.nj.gov/dep/enforcement/tcpa/downloads/IST\\_SUMWEB.pdf](https://www.nj.gov/dep/enforcement/tcpa/downloads/IST_SUMWEB.pdf); [https://www.nj.gov/dep/enforcement/tcpa/downloads/ist\\_summary\\_2022\\_update\\_7-26-22.pdf](https://www.nj.gov/dep/enforcement/tcpa/downloads/ist_summary_2022_update_7-26-22.pdf); *see also* Comments of NY Atty. Gen. (July 2021), EPA-HQ-OLEM-2021-0312-0043.

<sup>186</sup> *See, e.g.*, CSB PES Report at 79, <https://www.csb.gov/philadelphia-energy-solutions-pes-refinery-fire-and-explosions/> (finding cause of the 2019 fire and explosion “was the rupture of a steel piping component with high nickel and copper content that had corroded from HF and thinned faster than adjacent piping components with lower nickel and copper content. The ruptured pipe released propane



supervisors involved in operating a process will ensure that a lack of information, human error or mismanagement cannot undermine safety, as the CSB has found.<sup>187</sup> Requiring protocols to be put in place for safer shutdown and startup during scheduled turnarounds, and for unplanned shutdowns due to storms, hurricanes, or other natural hazards would also reduce and avoid incidents that have happened during these times.

EPA should evaluate and further support its proposed finding that assessing safer technologies and other alternatives, including workers in that assessment, and reporting on safer methods implemented will put a thumb on the scale of safety, by assuring a consideration of safer alternatives happens at a facility among management and labor representatives, and by providing transparency to EPA and the public on safety steps taken. For example, EPA states that “EPA believes facility owners and operators will adopt IST and other safer technology alternatives when it is practicable technically and economically and when the risk reduction is significant even in the absence of a mandate” due to economic savings to the facility. 87 Fed. Reg. at 53,580. EPA should further recognize and acknowledge the value of STAA, as shown by state and local government-implemented examples, in preventing harm or “minimizing the consequences” of a chemical release, as well as preventing incidents and releases. Requiring STAA is the most reliable method to assure facilities do all they can to assess hazards and prevent disasters.

B. EPA must add essential improvements to the STAA provisions in the final rule

In finalizing the rule, EPA should (1) expand the scope of coverage of the STAA provision, (2) require practicable implementation, (3) strengthen the STAA reporting and accountability provisions, and (4) speed up compliance.

1. *EPA should expand the scope of STAA coverage*

First, EPA fails to justify constricting the scope of coverage of the STAA provision to only about 590 facilities.<sup>188</sup> Many hazardous facilities - including some with serious RMP disasters or near misses in recent years – are not slated to be covered by STAA according to

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and toxic hydrofluoric acid to the atmosphere.”); *see also* Loy Lange Box Co. Pressure Vessel Explosion, No. 2017-04-I-MO (July 29, 2022), <https://www.csb.gov/loy-lange-box-company-pressure-vessel-explosion/> (highlighting insufficient inspections, pressure vessel repair and corrosion as causes).

<sup>187</sup> *See, e.g.*, CSB Issues Report on 2008 Bayer CropScience Explosion: Finds Multiple Deficiencies Led to Runaway Chemical Reaction; Recommends State Create Chemical Plant Oversight Regulation,” <http://www.csb.gov/csb-issues-report-on-2008-bayer-cropscience-explosion-finds-multiple-deficiencies-led-to-runaway-chemical-reaction-recommends-state-create-chemical-plant-oversight-regulation/> (former CSB Chairperson Moure-Eraso: “The deaths of the workers as a result of this accident were all the more tragic because it could have been prevented had Bayer CropScience provided adequate training, and required a comprehensive pre-startup equipment checkout and strict conformance with appropriate startup procedures”). Many CSB reports highlight the need for employee training to advance safety. *See* [https://www.csb.gov/recommendations/?F\\_Keywords=training&F\\_All=y](https://www.csb.gov/recommendations/?F_Keywords=training&F_All=y).

<sup>188</sup> *See* EPA HF & One-Mile Facility List (attached).



EPA's list, including, e.g.,: Intercontinental Terminal Co. (ITC) in Deer Park, TX<sup>189</sup>; Valero Houston Refinery in the Manchester neighborhood of Houston<sup>190</sup>; Croda in New Castle, Del.,<sup>191</sup> and other commenters have highlighted other similarly serious omissions that are not justifiable. It appears that the facilities in Louisiana responsible for over 50 RMP releases in the reportable harm incident list since 2010 would not be covered by the proposed STAA requirements – even though they many are concentrated near communities facing severe cumulative impacts of pollution and are in an area facing worsening storms due to climate change.<sup>192</sup>

A map of RMP reportable harm incidents from 2004-2020 at facilities not slated for STAA coverage in the proposed rule illustrates that EPA's proposed exclusions are arbitrary and miss many facilities that have had serious problems.<sup>193</sup> In particular, of the 2,436 RMP reportable harm incidents in EPA's Appendix A from 2004-2020: 578 occurred at one of the 590 facilities proposed for coverage under the STAA, due to proximity to another covered facility, HF usage, or both. The remaining 1,858 incidents from 2004-2020 occurred at facilities that are not proposed to be covered under the new rule.<sup>194</sup>

EPA tries to use recent incident data and cost to attempt to justify the exclusion of certain facilities, but has failed to demonstrate this restriction is lawful or rational. EPA also fails to provide significant justification for not applying the STAA provision to other facilities for which EPA recognizes safer technologies and alternatives are available.

EPA is taking comments on whether to extend coverage of the STAA provisions to more facilities and more sectors. Commenters give a resounding *yes* in response to this question. Performing the STAA and reporting results on this would be valuable across all of the nearly 12,000 facilities both to provide information to facilities themselves and to workers inside advocating for safety, and to provide information to EPA and the public on what is currently available. At minimum, EPA should apply this to all facilities in NAICS codes (322, 324, 325) where the repeated harm from incidents is so great -- and also to the other most hazardous

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<sup>189</sup> CSB, Intercontinental Terminal Co. (ITC) Tank Fire, Mar. 17, 2019, Factual Update, No. 2019-09-1-TX (published Oct. 30, 2019), <https://www.csb.gov/intercontinental-terminal-company-itc-tank-fire/>.

<sup>190</sup> See, e.g., L. Olsen, A year later, Texas regulators start to act against Harvey's polluters, HOUSTON CHRON. (Aug. 31, 2018), <https://www.houstonchronicle.com/news/investigations/article/A-year-later-Texas-regulators-start-to-act-13196572.php>; Env'tl. Integrity Project, *Preparing for the Next Storm, Learning from the Man-Made Environmental Disasters that Followed Hurricane Harvey* (Aug. 16, 2018) ("Preparing for the Next Storm"), <https://www.environmentalintegrity.org/wp-content/uploads/2018/08/Hurricane-Harvey-Report-Final.pdf> (discussing release of over 235,000 pounds of toxic air pollutants from tank related to Hurricane Harvey).

<sup>191</sup> DRNEC, Q and A: Croda Ethylene Oxide Release November 25, 2018 <https://dnrec.alpha.delaware.gov/croda-questions-answers/>.

<sup>192</sup> See EPA Technical Background Document Appendix A List, Modified to Show Proposed STAA Facilities: App. A. 2022 PR\_Facility STAA status proposed\_EPA-HQ-OLEM-2022-0174-0065 (created by Robyn Winz, Earthjustice) (attached) (sorted by Louisiana, showing STAA status "not covered").

<sup>193</sup> See Map of Reportable Harm Incidents at Non-STAA Facilities 2004-2020 (created by Robyn Winz, Earthjustice) (attached).

<sup>194</sup> See EPA Technical Background Document Appendix A List, Modified to Show Proposed STAA Facilities: App. A. 2022 PR\_Facility STAA status proposed\_EPA-HQ-OLEM-2022-0174-0065 (created by Robyn Winz, Earthjustice) (attached).

facilities with the most severe hazards (like wastewater treatment and fertilizer plants) and where safer technologies are known to be available (e.g., wastewater and other chlorine-using facilities).

Importantly, the CSB did not limit the scope of its recommendation on IST to only the facilities EPA proposes for coverage here – it included all refineries using HF and other facilities for which inherently safer technologies may be available.<sup>195</sup> EPA’s exclusion of facilities is therefore unlawful and arbitrary as inconsistent not only with the core prevention goal but also with the CSB recommendation. Under section 112(r)(6), EPA must respond to this recommendation, and EPA has failed to justify why it is not following CSB expert advice on IST. 42 U.S.C. § 7412(r)(6)(I).<sup>196</sup>

As further discussed below, EPA must require STAA “to the greatest extent practicable” as section 7412(r)(7)(B) directs, and the restrictive and unjustifiable limitations it has drawn fail to satisfy the Act.

a. Incident data does not justify STAA exclusions

EPA states that it is defining the scope as proposed due to “accident severity,” which is based on the “increased accident frequency” and harm from these incidents in communities with more than one refinery or chemical plant. 87 Fed. Reg. at 53,578. Incident rates alone cannot lawfully or rationally justify *limiting STAA* when EPA has recognized this as a “life-saving” prevention measure. *Air All. Houston et al. v. EPA*, 906 F.3d 1049, 1064-66 (D.C. Cir. 2018) (citing 2017 Rule). The core objective of the statute is preventing an incident and resulting harm from occurring in the first place, 42 U.S.C. § 7412(r), (7)(A), (B). Therefore, limiting an important prevention measure to *only* those sectors with the most prior incidents contradicts this core statutory language and objective. While incident record is relevant in that it shows a strong need to prevent future incidents and require coverage, it does not provide a reason *to exclude* any petroleum refineries or chemical manufacturers from the scope as EPA has proposed to do. These sectors as a whole are those with the worst documented incident rates as shown in the record – recognizing that these rates are likely underreported and undercounted.

Using incident rates as the primary criteria not to cover hazardous facilities is irrational and inconsistent with the statute’s focus on prevention, including preventing catastrophes. Under this statute, any one incident is too much and EPA should strive to prevent all incidents and all harm. EPA should not allow severe and potentially irreparable harm to occur before it strengthens protection.

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<sup>195</sup> See CSB, Fire and Explosions at Philadelphia Energy Solutions Refinery Hydrofluoric Acid Alkylation Unit at 80 (June 21, 2019), No. 2019-04-I-PA (published Oct. 11, 2022), <https://www.csb.gov/philadelphia-energy-solutions-pes-refinery-fire-and-explosions-/>; CSB, Investigation Report: Catastrophic Rupture of Heat Exchanger, Tesoro Anacortes Refinery, Anacortes, Washington, April 2, 2010, Report No. 2010-08-I-WA (May 2014), [http://www.csb.gov/assets/1/7/Tesoro\\_Anacortes\\_2014-May-01.pdf](http://www.csb.gov/assets/1/7/Tesoro_Anacortes_2014-May-01.pdf).

<sup>196</sup> See CSB Oct. 2022 Comments, <https://www.regulations.gov/comment/EPA-HQ-OLEM-2022-0174-0166>.

Incident rates cannot justify exclusion of certain chemical plants and refineries, or pulp/paper mills, wastewater treatment, or agricultural/fertilizer plants because these sectors all have dangerously high incident rates in a program where no incidents are supposed to occur. *See CIDA et al.* July 2021 comments at 16. The most current data available show that the chemical manufacturing sector and petroleum refinery and oil and gas sector, each have some of the largest shares of the reported harm incidents, 25.8% and 18.6%, respectively. While EPA previously found the pulp and paper sector to be in the top three for worst incident records, it appears that the farm supplies and industrial agricultural sector (including fertilizer and pesticide production) must be recognized as one of the sectors with the worst incident records (15.7%). Water supply and sewage treatment also has a substantial percentage (5.9%) of the reported harm incidents. These incident data support the need for EPA to strengthen the regulations, and in particular to require hazard reduction and elimination because of the broad range of substantial incidents across these sectors.

**Table 3. RMP Reported Harm Incidents Since 2004 in 5 Industry Sectors With Most Incidents, by NAICS Code<sup>197</sup>**

NAICS Industry Description	Incident Total	% of Total
Chemical and Plastics Manufacturing and Wholesale <sup>198</sup>	626	25.8%
Petroleum Refineries, Oil and Gas <sup>199</sup>	452	18.6%
Farm Supplies, Including Fertilizer and Pesticide Production, Wholesalers, Warehousing and Storage <sup>200</sup>	381	15.7%
Water Supply and Sewage Treatment <sup>201</sup>	143	5.9%
Pulp and Paper <sup>202</sup>	73	3.0%

While there is strong justification for covering the selected facilities, there is no valid justification not to require a refinery or chemical manufacturer to assess IST and consider ways

<sup>197</sup> Source: EPA May 2021 RMP (non-OCA) Database (showing incidents causing reported deaths, injuries, and other harm to people, property damage, and ecological damage). The method for this was identical to what was done for county (*see supra*), with the exception that NAICS code was used instead of county.

<sup>198</sup> NAICS codes: 32518, 32511, 325199, 325188, 32519, 325211, 32519, 325998 (Inorganic and Organic Chemical Manufacturing, Petrochemical Mfg, Plastics & Resins & Rubber Mfg & Chemical Wholesalers).

<sup>199</sup> NAICS codes: 32411, 21112, 22121, 21111, 211111, 42271, 325192, 2113, 42471, 42272, 42472, 48691 (Petroleum Refineries, Oil and Natural Gas production, distribution, wholesale, storage).

<sup>200</sup> NAICS codes: 42291, 49312, 325311, 42491, 32532, 325312, 325314 (Farm Supplies, Wholesalers, Warehousing and Storage, Refrigerated Warehousing and Storage, Fertilizer & Pesticide Production<sup>200</sup>). Note that adding poultry, meat, frozen and other food processing would substantially increase these totals.

<sup>201</sup> NAICS codes: 22131, 22132 (Water Supply and Irrigation Systems, Sewage Treatment).

<sup>202</sup> NAICS codes: 32211, 322121, 32213 (Pulp mills, Paper, Paperboard).

to operate more safely simply because it is not within 1 mile of another refinery or chemical plant. Hazards, proximity to communities, workers in harm's way, and the availability of IST would be rational factors, but the 1-mile designation is not.

If EPA uses any mileage justification, it should go at least 10 miles out, to capture more facilities and protect communities from cascading harms. For example, the evacuation zone at the Husky Refinery had a 10-mile radius,<sup>203</sup> and EPA recognizes that the worst-case scenario zones for at least 10% of facilities are greater than 6 miles and at least 5% are as high as 10 miles. 87 Fed. Reg. at 53,601. EPA has failed to ensure that any facility that could have a 10-mile or larger worst-case scenario impact is included in the STAA coverage and that, alone, demonstrates the limitation it has chosen is irrational.

Further, as EPA's own request for comments on the 1-mile radius restriction show, it is unclear how to determine this. The 1-mile radius restriction EPA has proposed is unworkable as well as unjustifiable. The record does not show how EPA created the list – the longitude/latitude data listed do not show any radius information that the public can replicate. And it is highly likely that even EPA's own best attempt at applying this test has fallen short and missed facilities. Commenters attempted to create a single list that would be covered by the STAA because we could not find this in the docket – and that includes a list of 590 facilities.<sup>204</sup> That EPA has not even provided a single list much less documented how it reached the total numbers it provides in the record shows that EPA should not use a 1-mile limitation to restrict coverage of the STAA provisions (or the information provisions, as discussed later). Further, Commenters could not understand why some facilities are listed for coverage using the geographic restriction and some are not.<sup>205</sup> EPA has provided only the lat/long for an STAA-covered facility – but has not listed which other facilities that one is near. This makes the list not replicable and not reliable for communities attempting to evaluate the list and comment on it. EPA has not placed all of the underlying data on this list into the record (including what other facilities a 324/325 facility is near and how EPA chose to apply the 1-mile distance), which undermines the ability to understand and comment on this.

While there is strong justification for requiring STAA due to the collocation or nearby location of many facilities, a 1-mile radius restricts too much the likely impact area for severe hazards and releases from refineries and chemical plants – especially for communities in the Gulf like Houston and Cancer Alley where there are many facilities within a 1-10 mile radius that can strongly affect not only overall death, injury and toxic exposure impacts but also the ability of communities to evacuate, the ability of first responders to assist. See Maps of Some Example

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<sup>203</sup> CSB, Husky Refinery Factual Investigation Update (Dec. 2018), [https://www.csb.gov/assets/1/20/husky\\_factual\\_update\\_-\\_2.pdf?16594](https://www.csb.gov/assets/1/20/husky_factual_update_-_2.pdf?16594); CSB, Husky Refinery Explosion and Fire on Apr. 26, 2018 Factual Investigation Update (Aug. 2018), [https://www.csb.gov/assets/1/6/husky\\_factual\\_update.pdf?16317](https://www.csb.gov/assets/1/6/husky_factual_update.pdf?16317).

<sup>204</sup> EPA Technical Background Document Appendix A List, Modified to Show Proposed STAA Facilities: EPA STAA List Sept. 2022 One-mile radius + HF facilities\_combined (created by Robyn Winz, Earthjustice) (attached).

<sup>205</sup> Examples are the Union Carbide facility in Institute, WV (listed for STAA coverage), and the Specialty Products facility in Institute, WV (not listed for STAA coverage, even though it appears to be a 325 NAICS sector member within 1 mile of another).

Communities with Multiple Sources (created by Ava Farouche, Earthjustice, July 2021) (attached). Further, when a hurricane, flooding, wildfire, or earthquake trigger is considered, the 1-mile radius again carries no relevance – these tend to have impacts far greater than that, and covering only facilities within 1-mile are likely to dramatically miss facilities where cascading harm and cumulative impacts regularly or are likely to occur.

EPA does not address agricultural or fertilizer plants at all, and cannot justify excluding them when they are also in the top five of high incident sectors – with about 15.7% of incidents since 2004 – a higher percentage than pulp/paper that EPA admits should at least be considered.

The agency attempts to exclude water supply and sewage treatment facilities due to low off site impacts, but again, the percentage of incidents from this sector is still in the top five sectors and EPA cannot rely on incident record as a justification for excluding this sector.

EPA admits that the paper sector has “similar” accident rates to chemical manufacturers, but tries to contend that the smaller raw number of incidents and resulting consequences justify this exclusion. 87 Fed. Reg. at 53,578. When the Act requires prevention, and EPA is relying on incident rates, it cannot justify excluding one of the sectors with the highest rates simply because there are fewer sources in the sector. EPA gives no rational basis for denying harm to people working at or living near these sources. Further, using “accident consequences” to try to exclude these facilities is a slap in the face to the workers who were injured and to communities who are threatened by but due to a fluke of good fate did not experience the same level of harm from the incidents EPA evaluated.

In addition and importantly, relying solely on recent incident data from 2016-2020 to refuse to expand coverage is also unlawful and arbitrary because EPA knows that incident data are incomplete for these years. Analysis of EPA’s database by the UAW and by EPA itself has shown that recent incident data – from the last five years especially – miss and undercount the true number of harmful incidents and actual incidents. Although the rules require reporting of incidents within 6 months, analysis shows that this does not always happen. Instead, incident reporting has been substantially delayed over the course of the existing program.<sup>206</sup> EPA admits there is significant delay in reporting, of at least 6.7%. 87 Fed. Reg. at 53,592. Analysis of data show there is a far higher delay in reporting incidents during the most recent 5 years, until a full RMP is due. That means that the data from the most recent 5 years likely undercounts incidents substantially – enough to dramatically skew EPA’s decision to exclude facilities from the STAA coverage based on this information.<sup>207</sup> Incident data EPA is using misses many incidents and cannot rationally be used to restrict applicability of the STAA provision. Indeed, using these data rewards late-reporters and other non-compliant facilities, which, even under industry’s analysis, are those that warrant the greatest attention and action from EPA in this rulemaking.

EPA should demonstrate leadership on this critical prevention issue and in finalizing the rule should recognize that strong evidence justifies expanding the STAA provision’s scope, as EPA originally found in 2017, and beyond.

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<sup>206</sup> 2021 UAW comments (July 2021) (attached); *see also* UAW Oct. 2022 comments.

<sup>207</sup> 2021 UAW comments; Earthjustice et al. Comments (July 29, 2021).

b. Cost does not justify STAA exclusions

EPA’s unlawful, conclusory, and unsupported references to cost or “burden” to regulated entities also fails to justify excluding the vast majority of RMP facilities under the STAA provision – especially those with severe hazards and those where safer technologies are known to be available.

For example, EPA points to “burden” as a justification for not extending the STAA to more chemical plants and refineries, 87 Fed. Reg. at 53,577, but fails to explain why the burden is not justifiable considering the substantial benefits of reducing harm from incidents, and making it more likely that a facility will avoid a catastrophic event. Merely referencing “burden” to industry is insufficient to justify refusing to require additional protection.

Similarly, EPA tries to use “burden” and potential cost to state and local governments as a justification for refusing to require wastewater or water treatment facilities to perform STAA. 87 Fed. Reg. at 53,580. Yet, EPA does not seem to be considering or relying on any actual cost numbers to try to ground this conclusion – and EPA’s statement that it “needs more information on such costs” cannot suffice. EPA is choosing not to apply safety measures to these facilities, so EPA must justify that, if it follows through with the restriction, not the public. Refusing to apply safety measures to highly hazardous facilities without a determination, based on facts in the record, that this is barred or would not be effective, would be a paramount example of arbitrary governmental action. EPA regularly provides grants to state and local governments and has received significant water infrastructure funds for this purpose.<sup>208</sup> That EPA could resolve any costs for state/local governments through direct assistance to make water infrastructure safer and more secure only further shows its justification for not requiring STAA at these facilities is arbitrary.

Further, on the other side of the equation, EPA has acknowledged in the RIA that STAA has significant unquantified as well as quantifiable economic benefits. Thus, even if EPA could consider cost or burden, it could not refuse to require STAA without addressing why the benefits from harm avoided would be insufficient to justify this investment – yet, the record shows no such justification.

Importantly, EPA does not and cannot cite any legal authority that allows it to use cost as a justification for issuing weaker requirements than the statute otherwise directs. Section 7412(r)(7)(A) and (B) do not authorize EPA to use cost or regulatory burden in the way it does in this proposed rule. Neither provision makes “cost” or “burden” a relevant or allowable consideration in a section 112(r) rulemaking. *Id.*

Further, EPA has not demonstrated that the terms “reasonable” or “practicable” in section 7412(R)(7)(B) allow EPA to place cost or burden above the core objectives of the statute.<sup>209</sup>

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<sup>208</sup> See, e.g., EPA, Water Infrastructure Improvements for the Nation Act (WIIN) Grants, <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-grants#:~:text=June%2015%2C%202022%20%2D%20EPA%20announces,the%20EC%2DSDC%20grant%20webpage> (updated on Oct. 11, 2022).

<sup>209</sup> See AAH *et al.*, 2019 Reconsideration Petition (attached).

Even if EPA may consider cost or burden under these rubrics, the Act directs EPA to require prevention measures “to the greatest extent practicable,” rather than choosing an arbitrary level of cost or burden that is unjustifiable to the public.

As the D.C. Circuit held in denying EPA’s ability to delay compliance, section 7412(r)(7) requires consideration and a substantive decision on what is the greatest extent “practicable,” for the agency to justify its action. *Air Alliance Houston v. EPA*, 906 F.3d at 1064, 1066 (holding that EPA’s failure to assess how much time was needed to comply, much less support its determination that the time needed was necessary to comply, violated the Act and was arbitrary).

EPA has made no determination on practicability here – much less shown that what it has proposed is the “greatest extent practicable.” *Id.* at 1064 (“Subparagraph (B) requires EPA to determine that such regulations “provide, to the greatest extent practicable, for the prevention and detection of accidental releases of regulated substances.”). Therefore, EPA must expand the scope of STAA or it will violate the Act and engage in arbitrary decisionmaking.

Notably, EPA has recognized that it would not cost much more (about \$30M more annually) to apply STAA to all Program 3 facilities (including all NAICS codes 322, 324, 325, along with other plastics, chemical, chlorine, pesticide and fertilizer manufacturing plants). EPA has not shown that this would not be “practicable.” The fact that EPA has evaluated and found a more protective alternative and has not found that it is not practicable demonstrates that EPA must require it, to satisfy the Act’s directive for preventative measures “to the *greatest extent* practicable.” 42 U.S.C. § 7412(r)(7)(B).

Similarly, EPA has not shown that requiring STAA at all wastewater or water treatment facilities would not be “practicable.” Rather, EPA tries to rely on a lack of information about cost and burden to justify not requiring this coverage – which would turn the Act on its head.

Therefore, EPA has failed to demonstrate that it can exclude these facilities because the Act requires EPA to determine what is practicable – which it has not done – and to require prevention “to the greatest extent practicable,” which it also has failed to do here. *Id.*

c. EPA has failed to justify narrowing the STAA provisions

That EPA has narrowed the scope significantly from what the 2017 rule would have covered provides further illustration of how arbitrary it is not to cover more facilities.

That rule applied to all facilities in NAICS codes 324, 325, and 322 (pulp and paper). Here, EPA has removed pulp and paper facilities, and has proposed not to cover all petroleum refineries. Its justification based on incident rates fails to fill the gap when the agency amply supported its prior decision to cover these sectors – and the harm and incidents have continued to mount since that time. Unfortunately the narrowing of this rule to make STAA coverage even less expansive than the 2017 rule (which would still only have covered 1,557 RMP facilities, 82 Fed. Reg. at 4642), appears in part to be giving into industry’s contentions in a way that is unjustified in the record.

Without reasoned explanation, EPA has narrowed the applicability of this provision to fewer facilities than the 2017 Rule without grappling with the factual findings or analysis that led EPA to require this more broadly in that rule. That additionally makes EPA's more restrictive approach here arbitrary and capricious.

2. *EPA should require implementation of practicable safer technologies.*

We appreciate that EPA is taking comments on whether to require implementation of technically practicable IST/ISD and STAA's or inherently safer technologies, 87 Fed. Reg. at 53,580. Commenters call on EPA to require this expeditiously in this final rule, just as communities have called for years to assure implementation.

EPA has failed to justify refusing to require implementation of STAA at any facilities, and it is essential that EPA listen to comments on this issue and require implementation. The statute mandates prevention – not just assessment of how to prevent incidents, but *action to assure prevention*. Requiring safer technology implementation for the facilities identified for STAA, and for all facilities based on hazards to workers and communities where there are available and practicable safer technologies is necessary to satisfy the Act and well-supported by the agency record. Requiring implementation if practicable, with input from workers and EPA and public review and input, would ensure not only that safer technologies are considered, but that implementation occurs where it is truly workable for a facility, even if the particular management at that facility would not otherwise make this investment in safety measures.

EPA includes one conclusory paragraph on its minimal consideration of implementation requirements. 87 Fed. Reg. at 53,580. In that paragraph, EPA recognizes that the cost of implementation of STAA changes “range from less than \$1,000 to over \$100 million,” states that the agency “has little information on the potential costs of large STAA projects,” and therefore that “uncertainty” makes it “challenging to identify the benefits that offset implementation costs.” *Id.* EPA cites no statutory basis for using uncertainty or cost to refuse to require prevention measures. The Act does not direct EPA to consider these factors, nor does it require EPA to offset the costs with a finding of such definite benefits, as discussed above. 42 U.S.C. § 7412(r)(7)(A), (B). The Act also does not authorize EPA to use this as a justification. Instead, the Act requires EPA to advance prevention as requiring STAA implementation would do “to the greatest extent practicable.” EPA's discussion of why it is not requiring implementation of IST seems to be unmoored from its legal authority and statutory mandate, and thus unlawful and arbitrary.

EPA has failed to justify not requiring IST implementation at least at the most hazardous facilities where IST is available and practicable when the statute itself directs EPA to require prevention not just a little bit, but “to the greatest extent practicable.” 42 U.S.C. § 7412(r)(7)(B).

Even looking at the cost data before the agency, EPA admits that some IST costs as low as \$1,000 to implement. EPA has failed to justify assuring that all IST that could save lives, prevent injury and other harm at levels this low, and even far higher, is not implemented. That some implementation could cost \$100 million, a more expensive number, also does not alone justify failing to further evaluate or require this. EPA cannot rule out requiring implementation on cost alone without explaining why this could not possibly be justified for the most hazardous



facilities with the greatest profits, for example – and why doing anything less than requiring any implementation satisfies the directive for prevention and harm minimization “to the greatest extent practicable.”

And the “uncertainty” of the cost is also an insufficient ground on which to refuse to require implementation. EPA is the primary agency charged with fulfilling the responsibility to protect communities from catastrophe like a Bhopal-level disaster in the United States under Section 7412(r) of the Act. If there is uncertainty, EPA has a responsibility to gather information and perform the investigation needed to remove this uncertainty and make a decision on what is needed to assure prevention “to the greatest extent practicable.” EPA may not punt that responsibility or attempt to justify its decision to exclude facilities based on hypothetical costs or other issues it has chosen or failed to evaluate. The agency has the burden to justify its own action. The Act requires EPA to provide a lawful and reasoned justification for its action based on the record and failing to require any implementation at all fails the Act’s requirement for prevention and the requirement for reasoned agency decisionmaking.

Even if EPA were to find that requiring implementation would not be practicable at all at some facilities – which it has not done – it could not justify refusing to require implementation at the most hazardous facilities, especially those where it knows safer technologies are available. Those include, at least, petroleum refineries, chemical manufacturers, pulp/paper mills, fertilizer plants, and water treatment plants where both the severe hazards and the existence of inherently safer technologies are well-documented.<sup>210</sup>

Importantly, in the Tesoro investigation report, the CSB recommended requiring both an assessment and implementation of IST.<sup>211</sup> EPA’s proposal not to implement this recommendation is therefore unlawful and arbitrary as inconsistent not only with the core prevention goal but also with the CSB recommendation. Under section 112(r)(6), EPA must respond to this recommendation, and EPA has failed to justify why it is not following CSB’s expert advice to require implementation of IST.

EPA’s suggestion that the economics will drive implementation even if EPA does not require it may be true in some limited circumstances, but relying on voluntary measures alone does not assure prevention “to the greatest extent practicable.” EPA should evaluate the case study of methyl isocyanate (MIC) usage and safer alternatives assessed for years at the Bayer CropScience facility in West Virginia. The National Academies of Sciences published an in-depth report on this in which it found that business “trade-offs” after assessing safer alternatives to MIC led to some changes, but did not lead to hazard elimination or the choice of an inherently safer process. “Decisions about the production processes at the Institute plant appear to have

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<sup>210</sup> Paul Orum, Comment on EPA’s Risk Management Planning Program, Docket ID No. EPA-HQ-OLEM-2021-0312 (June 16, 2021), at 6-7, [EPA-HQ-OLEM-2021-0312-0014 \(attached\)](#); *see also* Coalition to Prevent Chemical Disasters 2016 comments at 6-7 (citing examples of shifting to less dangerous chemicals, including shifts away from chlorine) (attached).

<sup>211</sup> CSB Tesoro Anacortes CSB Report (2014) at 13 (“Revise the Chemical Accident Prevention Provisions under 40 CFR Part 68 to *require the documented use* of inherently safer systems analysis *and the hierarchy of controls to the greatest extent feasible* in establishing safeguards for identified process hazards.”), <https://www.csb.gov/tesoro-refinery-fatal-explosion-and-fire/>; *see also* Table 1, *above*.

been driven by business conditions and external pressures, rather than resulting from an application of ISP [inherently safer processes] analysis to the processes.”<sup>212</sup> The best and only way to ensure a community receives the benefit of inherently safer technologies that are available and practicable is for EPA to require implementation.

The highly hazardous chemical hydrofluoric acid (HF) provides an important case study on this issue. EPA appropriately requires STAA for all facilities using HF. The CSB has called for study and attention to this issue because of the chemical disasters and near catastrophic releases in recent years at the Philadelphia Energy Solutions, Husky Refinery, and Torrance Refinery.<sup>213</sup> As the CSB recognizes in the PES Investigation Report, a small number of refineries have moved forward with phasing out HF – but the vast majority have not taken these steps on their own. Workers and communities have long called for EPA to assure action on this issue. A few facilities and local governments have been evaluating and working to phase out use of this chemical at petroleum refineries, as cited above. Requiring implementation of practicable IST should lead to implementation of removal of HF as expeditiously as practicable, through careful consultation with workers and worker representatives and community members, and through assuring a just transition for changes to any work conditions or employment. Commenters recognize the rules at issue are intended to broadly cover all RMP facilities and RMP chemicals and encourage EPA to ensure that for the most hazardous ones, like those using HF, that EPA issues the strongest possible national protections to save lives and prevent injury and toxic exposure. Stronger action on the implementation of IST would go far to assure workers and communities that EPA is taking the threat of HF and other highly hazardous chemicals seriously and that the agency is fulfilling the statutory directive to prevent incidents, particularly catastrophic ones, *before* they happen, rather than relying solely on voluntary measures where market failure has delayed and prevented common-sense solutions.

In sum, relying on voluntary implementation alone is a slap in the face to frontline communities who have lived with this problem for decades, and have seen facilities repeatedly refuse to implement safer ways to operate, no matter how inexpensive or easy they may be. While the STAA, practicability assessment and justification report are all valuable and should be expanded and finalized as discussed in these comments, actual implementation must also be required. Prevention is about stopping harm before it happens – and removing the hazard or operating more safely from the start is the best possible way to implement the statute.

### 3. *EPA should strengthen the STAA reporting and accountability provisions.*

While EPA’s proposal is a step forward on STAA, requiring additional action toward implementation would also be more beneficial and more effective at assuring compliance than EPA’s proposal alone would do, in addition and in the alternative to requiring full implementation.

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<sup>212</sup> NAS, The Use and Storage of Methyl Isocyanate (MIC) at Bayer CropScience (2012) (attached), <https://nap.nationalacademies.org/catalog/13385/the-use-and-storage-of-methyl-isocyanate-mic-at-bayer-cropscience>.

<sup>213</sup> See, e.g., *supra* note 175 & surrounding citations.

First, rather than simply allowing facilities to perform the STAA and report what they have implemented, without more, EPA should require EPA review and approval of any determination not to implement IST, with public notice-and-comment, to assure that IST is implemented as the statute requires “to the greatest extent practicable.” 42 U.S.C. § 7412(r)(7)(B). This would ensure that, in addition to worker involvement which the proposal appropriately includes for Program 3 facilities (and should expand to all), EPA and the public would also be able to provide additional, timely oversight for any facility decision not to implement IST.

EPA should ensure that the RMP includes all documentation related to STAA considered, the practicability determination, and all STAA implemented or not.

4. *EPA should require faster compliance with the STAA provisions.*

EPA appropriately makes some of the proposed rule effective upon promulgation, yet proposes to allow facilities subject to the STAA provisions to take three years to comply – specifically allowing up to three years for facilities to perform STAA as part of a process hazard analysis. Proposed § 68.10(g); 87 Fed. Reg. at 53,606. EPA proposes another year before the STAA report and update will be provided in the RMP plan. *Id.*

EPA’s primary justification for this seems to be the “significant level of effort” required by a PHA update and the fact that it seeks to allow sources to wait and perform the STAA update to their PHA “in their normal PHA update cycle.” 87 Fed. Reg. at 53,606.

EPA should set a shorter deadline here. We appreciate that EPA is taking comments on whether to require completion of the STAA within one year, and Commenters strongly support that. EPA has not found, nor is there any evidence, that more than one year is needed. The hazards are severe and every day, every month counts to try to prevent death, injuries, toxic exposure and other harm. EPA originally put the STAA provisions in place in 2017 and then rescinded them in 2019. Communities have waited more than five years for these protections – and that unnecessary delay in protection justifies ensuring facilities perform the STAA as quickly as possible, not allowing them to wait until their next RMP plan submission.

Further, Section 7412(r)(7)(A) directs EPA to set an effective date that “assur[es] compliance as expeditiously as practicable.” EPA has not demonstrated that three years is as fast as possible to simply complete an assessment of safer technologies. It is critical for the health and safety of communities and workers for EPA to set a deadline of no longer than one year – and even shorter if possible – to complete the STAA.

A longer compliance deadline could be justified for implementation, including if phase out of a highly dangerous chemical is needed, for example – but in setting a compliance deadline for implementation, EPA should still ensure that it is as “expeditious as practicable,” as section 7412(r)(7)(A) requires.

On additional important technical issues regarding STAA where EPA has requested comment, Commenters support safety expert Paul Orum’s recommendations – including: strengthening the definition of safer technologies to align with best practices, including the

California Process Safety Management rules; expanding the “technology transfer” provision to cover more facilities and gather additional valuable information, including on wastewater and water treatment plants; ensuring that STAA clearinghouse data collected include narrative text and additional key data points, and that no data are suggested as “optional.”<sup>214</sup>

Regarding EPA’s request for comment on the definition of IST and the practicability assessment, EPA should look at the California and New Jersey rules and ensure that there are similarly strong, clear requirements so that facilities may not ignore practicable, safer methods.

## **6. INCIDENT INVESTIGATION & ROOT CAUSE ANALYSIS (SECTION IV.A.2.B)**

### **A. EPA must finalize the proposal with improvements.**

Commenters strongly support EPA’s proposal to require that facilities with Program 2 and 3 Processes must conduct a root cause analysis as part of an incident investigation for an RMP-reportable accident as defined under 40 C.F.R. § 68.42. 87 Fed. Reg. at 53,581, 53,611-12, 53,614 (proposing § 68.68, 68.81) (also requiring use of a “recognized method” of investigation such as CCPS, and setting a 12-month deadline).

This provision is likely to apply to about 156 facilities on average, per year, according to data from the most recent decade for which incident reports should be complete (2007-16).<sup>215</sup> Requiring these improvements to incident investigations is likely to prevent and assure action to address harm at the facilities that are at risk for repeated incidents. For example, EPA analyzed incident data and determined that 70 facilities reported two or more RMP-reportable incidents from 2016-2020. Of those 70 facilities, 60% reported repeat causal factors within the same process, indicating a failure to correct for prior failures, something root cause analysis could help avoid in the future. 87 Fed. Reg. at 53,582.

Requiring a root cause analysis is the state-of-the-art incident investigation method long recognized as essential to prevent a similar incident from repeating – as shown in many investigation reports that found repeated problems. *Id.*<sup>216</sup>

### **B. EPA should strengthen the incident investigation requirements**

Commenters call on EPA to add (1) specific requirements for a “near miss,” (2) make clear this applies even where a process is decommissioned or destroyed, and (3) shorten the deadline to complete the incident investigation report.

EPA should strengthen the proposal before finalizing to ensure that incident investigation occurs for “near misses” or incidents at RMP facilities where no RMP-reportable harm has

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<sup>214</sup> See 2022 Comments of Paul Orum.

<sup>215</sup> See EPA TBD App. A.

<sup>216</sup> See also 2016 Proposed Rule, 81 Fed. Reg. at 13,648-50 (citing prior investigations and other evidence supporting root cause analysis).

occurred – and that show the potential for such harm in the future.<sup>217</sup> This was a component in the 2017 rule and EPA has not lawfully or rationally justified refusing to include this specific term here.

EPA’s reason for not requiring incident investigation for a “near miss” is that investigation is already required without this definition. But the agency does not point to anything proving this has been happening. Indeed, there appears to be no analysis in the record of the incidents reported that were a “near miss,” or for which no RMP-reportable harm was reported – i.e., the 989 incidents EPA acknowledges in the record for 2004-2020 that its Appendix does not analyze. *See* TBD at 2-3 (stating that it has focused on the 2,436 RMP-reportable harm incidents, though there are 3,425 reported in total from 2004-2020). EPA cannot rationally contend that investigation of near misses is required when its own rules do not even require reporting such incidents.

EPA must add a definition of “near miss” because the CSB’s recommendations carry particular weight and EPA must respond to incorporate them or fulfill its statutory obligation to justify not doing so. 42 U.S.C. § 7412(r)(6)(I).<sup>218</sup>

Commenters also urge EPA to make clear that the incident investigation requirements apply even if a process is destroyed or decommissioned, or the facility is deregistered, after the incident. It is important that EPA is providing reporting requirements for deregistering facilities on STAA – but EPA should also assure that incident investigation requirements, including reporting, occur in this circumstance. Where an incident has caused or led to the decommissioning or deregistration it is likely to provide important information for the facility, workers, EPA, and the public to learn from. As EPA recognizes though it irrationally does not explain why it is requiring this here, many commenters have called for this for years, 87 Fed. Reg. at 53,583, and it was in the 2017 rule. 82 Fed. Reg. at 4603. EPA should reinstate this here for similar reasons to fulfill its objective of preventing future similar incidents after an incident is serious enough to have led to the decommissioning, destruction, and/or deregistration of a facility.

Finally, EPA should require completion of at least an initial incident investigation within 90 days – so this can be provided at the public meeting – with a final report due within 12 months. As EPA acknowledges, an air rule requires root cause and corrective action analyses for air releases at refineries within 45 days, showing this timing is possible. 87 Fed. Reg. at 53,583.

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<sup>217</sup> 87 Fed. Reg. at 53,584 (citing NJDEP definition “an unplanned, unforeseen, or unintended incident, situation, condition, or set of circumstances which does not directly or indirectly result in a regulated substance release. Examples of a near miss include, but are not limited to, process upsets such as excursions of process parameters beyond pre-established critical control limits; activation of layers of protection such as relief valves, interlocks, rupture discs, blowdown systems, halon systems, vapor release alarms, and fixed vapor spray systems; and activation of emergency shutdowns. A near miss also includes an incident at a nearby process or equipment outside of a regulated process if the incident had the potential to cause an unplanned, unforeseen, or unintended incident, situation, condition, or set of circumstances at the regulated process”).

<sup>218</sup> *See* CSB Oct. 2022 Comments, <https://www.regulations.gov/comment/EPA-HQ-OLEM-2022-0174-0166>.

As the highly hazardous releases can be even more complex than those reports, allowing up to 90 days – when there is a public meeting report requirement – could be justifiable. But 12 months is too long. EPA should consider setting a shorter timeframe for the incident investigation to be completed to satisfy the Act’s requirement to assure compliance “as expeditiously as practicable,” 42 U.S.C. § 7412(r)(7)(A) – and to ensure that information gleaned from the investigation can be used more quickly than 12 months to strengthen safety planning at the facility.

## 7. THIRD PARTY COMPLIANCE AUDITS (SECTION IV.A.2.C)

### A. EPA must finalize the proposed requirements for third-party compliance audits with improvements.

Commenters support EPA’s proposal to require third-party compliance audits for certain Program 2 and 3 facilities and those for which EPA or another implementing agency requires this, and we also urge the agency to expand the scope beyond what it has proposed – to more facilities. Proposed 40 C.F.R. §§ 68.58, 68.79, 68.59, 68.80. Commenters also strongly support the proposed rule provisions that would require reporting of any recent compliance, completion date of changes made resulting from that, and whether it was third-party or not – as well as for Program 2, any declined auditor recommendations or findings in the RMP. Proposed §§ 68.170, 68.175.

Third-party audits improve compliance and ensure facilities learn from incidents, as EPA, the CSB, and other safety experts have found. 87 Fed. Reg. at 53,584-86.<sup>219</sup>

### B. EPA should add essential improvements to the compliance audit provisions.

#### 1. *Scope of Third-Party Compliance Audits:*

Although the record shows a strong need for such audits at the facilities with the worst incident records (e.g., those that have had 2 RMP-reportable incidents within 5 years) and those refineries and chemical facilities closely located near others, EPA cannot justify restricting the audit requirements to only these facilities. EPA should expand the scope to require a third-party audit for all Program 2 and 3 facilities – as all of these have strong potential to cause harm to workers and fenceline communities.

EPA should not delay triggering the audit requirement until after an incident has occurred. That would turn the prevention objective of the Act on its head – EPA must require prevention “to the greatest extent practicable” under section 7412(r)(7)(B). Requiring audits for facilities with an incident as well as all facilities that have never had an incident – at least those in Programs 2 and 3 – would be the best way to assure that EPA acts *before* harm occurs to achieve an independent safety evaluation. Requiring third-party compliance audits for all facilities which have ever delayed an incident report, delayed first-responder coordination,

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<sup>219</sup> See also 2016 Proposed Rule, 81 Fed. Reg. at 13,654-58 (citing CSB investigation reports, EPA settlement agreements, state and local rules, and other supportive evidence); 2017 Final Rule, 87 Fed. Reg. at 4612-13.

emergency response exercises, delayed or filed an incomplete RMP plan, or had any other compliance concerns documented in the RMP database is also essential. Third-party compliance audits are an important way for EPA to assist facilities in assuring compliance before a disaster or catastrophe occurs and restricting only to facilities with incidents, rather than also those with other compliance concerns, would be arbitrary and capricious.

EPA also must expand the scope of the third-party audit compliance provision because the CSB's recommendations carry particular weight and EPA must respond to incorporate them or fulfill its statutory obligation to justify not doing so. 42 U.S.C. § 7412(r)(6)(I).<sup>220</sup>

Further, EPA has narrowed the applicability of this provision to fewer facilities than the 2017 rule without grappling with the factual findings or analysis that led EPA to require this more broadly in that rule. That additionally makes EPA's more restrictive approach here arbitrary and capricious.

2. *Reporting on Compliance Audits should be expanded and clarified.*

Commenters also strongly support requiring any declined findings to be included in narrative form with more information that EPA, workers, and the public can use to evaluate and attempt to change these determinations. Check boxes on the RMP form alone would fail to provide more than the fact of the declination or a catch-all justification. Information with detail on the recommendations, and on the decision are greatly needed to assure that a facility does not decline to implement important, practicable recommendations that would save lives, prevent injuries, and toxic exposure.

Importantly, EPA should also assure that the reporting requirements for Program 3 facilities match those for Program 2 – it looks like the proposed § 68.175(k) is missing the key language in proposed § 68.170(i): “and findings declined from third-party compliance audits and justifications.” From the preamble of the proposed rule which makes clear EPA is proposing and taking comment on applying this to both Program 2 and 3, 87 Fed. Reg. at 63,587, this appears to be an inadvertent technical error, and this language should be added to 68.175.

3. *Requirement to implement Practicable Compliance Auditor Recommendations.*

Finally, for reasons discussed above for natural hazard mitigation, power loss mitigation, stationary source siting, and STAA implementation, EPA should also require facilities to implement all practicable recommendations of third-party compliance auditors. Requiring implementation, not just relying solely on voluntary action by facilities, is essential to assure prevention of future incidents “to the greatest extent practicable,” as section 7412(r)(7)(B) requires.

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<sup>220</sup> See CSB Oct. 2022 Comments, <https://www.regulations.gov/comment/EPA-HQ-OLEM-2022-0174-0166>.

## 8. EMPLOYEE PARTICIPATION (SECTION IV.A.2.D)

### A. EPA must finalize the proposed employee participation requirements with improvements.

Commenters stand in solidarity with workers who are hurt “first and worst” in many chemical disasters.<sup>221</sup> Workers are also the first line of defense to prevent an incident and minimize harm in real time – and must be empowered to play an even more critical role in safety planning and prevention earlier in time. Therefore, Commenters strongly support EPA’s proposed employee participation provisions which would make a significant difference to strengthen health and safety protection because both worker involvement in planning leads to smarter safety choices at industrial facilities that protect fenceline communities, public safety and the environment.

We support EPA’s requirement for Program 2 and 3 facilities to create a written plan of action regarding employee participation (proposed § 68.62(a), consistent with § 68.83(a)), and to require both types of facilities to provide for anonymous reporting of “unaddressed hazards that could lead to a catastrophic release, unreported RMP-reportable accidents, or any other non-compliance with 40 CFR part 68” (proposed §§ 68.682(b), 68.83(e)). It is also essential for workers and their chosen representatives to have access to all hazard reviews, process hazard analyses, and all other information required to be collected and reported under the RMP program, as EPA proposes to extend to Program 2 facilities. Sections 68.62(c), 68.83(f).

For Program 3, EPA proposes some of the most critical protections: including Stop Work Authority (§ 68.83(d)), and the requirement for a facility owner/operator to “consult with employees” on the development of the process hazard analysis (PHA) and other elements of process safety and on “addressing, correcting, resolving, documenting, and implementing recommendations and findings” of PHA, compliance audits, incident investigations – § 68.83(b), (c). EPA’s proposal would also assure that those facilities also covered by the STAA provisions would have to consult with and include workers in the STAA and practicability assessment. § 68.67(9)(iii) (requiring STAA and practicability assessment to include a team “with expertise in the process being evaluated, including at least one member who works in the process”).

The value and effectiveness of these types of provisions are well-demonstrated by the CSB recommendations calling for them, and by state rules like those in California that include similar provisions that have improved safety. 87 Fed. Reg. at 53,587-93 (citing evidence).<sup>222</sup>

Employee participation in safety planning and implementation is an essential component of incident prevention, as shown by the CSB recommendations and other safety expert guidance. Therefore, requiring these provisions to protect workers and prevent off-site harm to

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<sup>221</sup> See, e.g., USW Comments at 2 (July 2021), EPA-HQ-OLEM-2021-0312-0057; see also UAW Comments (July 2021), [EPA-HQ-OA-2021-0671-0005](https://www.epa.gov/epa-hq-oa-2021-0671-0005).

<sup>222</sup> See also Steve Sallman and Rick Engler, Bargaining for Stop Work Authority to Prevent Injuries and Save Lives, United Steelworkers Health, Safety, and Environment Department (July 1, 2022), [https://www.usw.org/get-involved/hsande/resources/publications/StopWorkAuthority\\_July2022.pdf](https://www.usw.org/get-involved/hsande/resources/publications/StopWorkAuthority_July2022.pdf) (attached).



communities and first-responders is well within EPA’s authority under section 7412(r)(7)(A) and (B) and they must be finalized.<sup>223</sup> Because employees are the first line of defense in avoiding and responding to chemical disasters, the Act requires EPA to ensure robust employee participation as a form of prevention “to the greatest extent practicable.” 42 U.S.C. § 7412(r)(7)(B). Due to the CSB recommendations for these provisions, EPA must respond to implement them as the Act requires. *Id.* § 7412(r)(6)(I) (requiring affirmative response to CSB recommendations or reasoned justification for not implementing such recommendations). Failing to finalize these provisions would also be arbitrary and capricious in view of the strong evidence demonstrating that employee participation provisions like these will help avoid incidents and prevent and minimize harm to public health and safety. *See, e.g.*, 87 Fed. Reg. at 53,587 (citing CSB findings).

B. EPA should add essential improvements to the employee participation provisions.

Commenters urge EPA to respond positively to the United Steelworkers, United Auto Workers, New Jersey Work Environment Council, and Blue Green Alliance comments by expanding and strengthening the important employee participation provisions.

In particular, it is essential for EPA to apply the provisions currently applicable only to Program 3 facilities to all Program levels. Program 2 facilities can cause serious harm to workers, communities, and first responders and employees and worker representatives need the same consultation power, access to information, and stop-work authority to apply there. In addition, Program 1 facilities have had serious incidents and can kill and injure other nearby employers, harm first-responders and cause other serious consequences, even if they are not expected to cause off-site harm. As Program 1 facilities receive the most minimal protections otherwise under the proposed rule, it is essential to ensure that they have the benefit of the employee participation protections.

Further, EPA should strengthen the employee training provisions (40 C.F.R. § 68.54, 68.71) by adding specific requirements that employees receive training on the RMP rule’s employee participation and employee rights provisions, including stop-work authority. For the employee participation provisions to be fully effective and valuable, employees must receive specific information on these provisions, and the role of workers to consult and provide input on safety planning and implementation, as well as emergency response. EPA is appropriately taking comment on whether to provide annual notification to workers on the availability of RMP information and on the RMP program and Commenters strongly support this – it is important and necessary to include this in the final rule.

Commenters call on EPA to ensure that the final rule provides for immediate, direct anonymous worker reporting *to EPA* via an EPA hotline on safety and non-compliance concerns (as well as non-anonymous reporting for workers who choose to report openly). EPA should also ensure all such reports received are logged and addressed by EPA promptly. EPA should ensure these reports (without any identifiable information) and any responses are memorialized in the

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<sup>223</sup> *See, e.g.*, 2017 Final Rule, 82 Fed. Reg. at 4603 (“...it has been the Agency’s longstanding position that incidents that primarily or even exclusively impact on-site receptors are potentially relevant to protection of the public and the environment from the risks of an accidental release.”).

RMP records for a facility. It is unclear how any worker could report anonymously to their employer without being identified, without facing retribution, and ensure that leads to meaningful compliance or change. So requiring anonymous worker reporting to EPA itself with review and action as needed by EPA to follow-up is absolutely essential. The rule should be clarified to ensure that happens as if reports go only to the employer, workers may still not feel comfortable and there will be no information access or accountability to ensure safety or mitigation measures are taken quickly to prevent an incident or solve the compliance problem. Further, EPA should put clear language into the rule recognizing that the Clean Air Act protects workers from retaliation. *See, e.g.*, 42 U.S.C. § 7622.

The example anonymous worker reporting tools have direct reporting to the regulatory agency.<sup>224</sup> EPA's requirement here should follow and learn from those examples to be fully effective and valuable in advancing safety, preventing incidents and minimizing harm, and assuring compliance.

In addition, EPA should ensure that facilities report to EPA on compliance with all aspects of the employee participation requirements, including establishment of the anonymous worker reporting system, the employee participation plan, consultation, information access for workers. Critically, EPA should also require reports to EPA promptly, within 3 business days of any exercise of stop-work authority, and any facility response to such exercise. And, EPA should ensure all such reports must be included in the RMP plan update, pursuant to § 68.175 (and 68.170, if extended to Program 2 as urged).

Finally, EPA should shorten the compliance date proposed. Three years is too long for workers and community members to wait to receive the vital protection offered by the employee participation requirements. No more than one year should be allowed. EPA has not shown that one year is not possible or that three years is the most "expeditious" as practicable compliance deadline, and thus the 3-year deadline violates the Act, § 7412(r)(7)(B), and is arbitrary and capricious.

## **9. EMERGENCY RESPONSE REQUIREMENTS (SECTION IV.B.2)**

- A. EPA must finalize the proposed emergency response planning and notification requirements with improvements.

The proposed emergency response planning requirements are important and necessary for EPA to finalize and strengthen. In particular, the proposed requirements for Program 3 facilities

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<sup>224</sup> *See, e.g.*, See FAA Aviation Reporting System; National Firefighters [www.firefighternearmiss.com](http://www.firefighternearmiss.com); CIRAS (Confidential Incident Reporting and Analysis System), the confidential reporting system for the British railway industry; CHIRP (Confidential Human Factors Incident Reporting Programme / Confidential Hazardous Incident Reporting Programme), British aviation and maritime industries; CROSS (Confidential Reporting on Structural Safety), structural and civil engineering industry; BSEE, Director's Corner (Feb. 18, 2014), <http://www.bsee.gov/Safety/Directors-Corner/>; BSEE, Press Release, BSEE and BTS to Host Public Meetings to Discuss Near-Miss Reporting System (Mar. 31, 2014), <http://www.bsee.gov/BSEE-Newsroom/Press-Releases/2014/BSEE-and-BTS-to-Host-Public-Meetings-to-Discuss-Near-Miss-Reporting-System/>; <http://www.firefighternearmiss.com/About>.

to “assur[e] that a community notification system is in place to warn the public within the area threatened by the release,” are essential – utilizing the existing infrastructure. Proposed § 68.95(a)(1)(i), § 68.90(b)(6), 87 Fed. Reg. at 53,596-97. Communities have long called for EPA to ensure that chemical release information reaches the public through direct community notification. Both EPA and the CSB have long highlighted the need for this as well, as a way to ensure people affected by a disaster have information they need to try to avoid or reduce their exposure, and to minimize harm to community members.<sup>225</sup>

It is also important for EPA to finalize the other emergency response planning requirements – to further expand access to information for first-responders and the public (proposed §§ 68.90(b)(3), 68.95(c)), to ensure non-responding facilities satisfy emergency planning requirements (§ 68.90(b)), and to reaffirm and ensure coordination with the EPCRA emergency response planning teams regarding all information necessary for developing and implementing the community emergency response plan, in view of the RMP facility and its potential impacts. §§ 68.90(b)(1)(3), (6), 68.95(c); 87 Fed. Reg. at 53,597-98.

EPA must finalize these requirements to fulfill its obligation to provide for emergency response and release harm minimization “to the greatest extent practicable.” 42 U.S.C. § 7412(r)(7)(B); *see also* 7412(r), 7412(r)(7)(A). Failing to do so would be illegal and arbitrary based on the strong evidence showing the need for greater information-sharing and coordination with first-responders, and the need for community alerts and information directly to the affected public. For example, the CSB and first responders have long highlighted the need for alerts for the public, in investigation reports. *See, e.g.*, 87 Fed. Reg. at 53,594-95 (citing Title III Program Officials’ comments and CSB findings).

**B. EPA must strengthen the proposed emergency response planning and notification requirements.**

Commenters urge EPA to expand these important emergency response planning and community notification requirements at least to all Program 2 facilities. Doing so is necessary to protect people near the additional facilities where serious toxic exposure, death and injury can occur from an RMP release, and where shelter-in-place and evacuation orders happen frequently. Failing to expand this would be illegal and arbitrary based on the strong evidence showing the need for greater information-sharing and coordination with first-responders, and the need for community alerts and information directly to the affected public. 42 U.S.C. § 7412(r)(7)(B); *see also* 7412(r), 7412(r)(7)(A). Further, EPA has provided no justification for providing this important protection only to people near Program 3 facilities, and could not do so.

In addition, EPA should ensure that it is clear in the rule itself that community notification will be provided in all relevant local languages. EPA recognizes that Spanish is part

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<sup>225</sup> *See, e.g.*, EPA, 2017 Final Rule, 82 Fed. Reg. at 4668 (“EPA continues to believe that providing chemical hazard information to the general public will allow people that live or work near a regulated facility to improve their awareness of risks to the community and to be prepared to protect themselves in the event of an accidental release.”); EPA, 2016 Proposed Rule, 81 Fed. Reg. at 13,641 (“easier access to appropriate facility chemical hazard information . . . can significantly improve emergency preparedness and their understanding of how the facility is addressing potential risks”).

of the FEMA program, but does not address any other languages. The proposed regulatory language does not specifically mention multilingual access and this is important to add.

EPA should also ensure reporting in the RMP plan to include a link or other information on how to access a community response plan.

#### **10. EMERGENCY RESPONSE EXERCISES (SECTION IV.B.3)**

- A. EPA must finalize an expeditious deadline for emergency response field exercises and mandate reporting in the RMP.

Commenters support EPA's recognition that a deadline is essential to ensure field exercises actually happen at Program 3 facilities, and to require mandatory reporting of fulfillment of this requirement. These are important and necessary to fulfill EPA's obligation under section 7412(r)(7)(B) to assure response "to the greatest extent practicable." Without a deadline, the provisions are meaningless and unenforceable. Further, the Act requires EPA to set a compliance deadline that is as expeditious as practicable, and no longer than three years. *Id.*; § 7412(r)(7)(A). So failing to set a deadline would not only be arbitrary and capricious but would violate the Act. EPA has appropriately acknowledged these changes and provided an explanation as required to justify them.

- B. EPA must strengthen the proposed emergency response exercise requirements.

EPA cannot lawfully set an RMP rule compliance deadline longer than three years under the Act and must set a deadline that assures compliance as "expeditiously as practicable." § 7412(r)(7)(A), (B). Therefore, EPA may not set longer than a three-year deadline for compliance with the field exercise requirements. Doing so would blatantly violate the Act and would be arbitrary and capricious in view of the fact that these exercises are necessary to plan for and prevent death, injuries and other harm in the event of an incident, and yet have never happened at some facilities. EPA should require exercises at least annually, to support the first-responder coordination and information access.

There is no evidence in the record showing that a facility would require more than one year to assure effective field exercises for all Program 3 RMP facilities – even if they are in a jurisdiction which has many facilities. For example, for areas with more than one Program 3 RMP facility, it is unclear why a community could not choose to coordinate such exercises among nearby facilities, to allow for efficient compliance and to replicate and plan for a potentially cascading incident. If a local government needs additional assistance to participate in such exercises, EPA could provide resources to support this. Further, if additional time is truly needed for a local government or first responder's participation, EPA could allow a local government to choose to vary its participation across different facilities over time – rather than allow some of the most hazardous RMP facilities with the worst incident records to avoid performing a field exercise altogether for years due to the local government's resource needs. The communities with multiple Program 3 RMP facilities where local first responders are most overburdened need field exercises and other effective emergency planning coordination the most.

Finally, EPA should expand the emergency response planning requirements applicable in the RMP rule at least to all Program 2 facilities – to assure that other facilities that could harm the public must participate in exercises and other emergency planning.

## 11. COMMUNITY INFORMATION AVAILABILITY (SECTION IV.C.3)

### A. EPA should modify the community information provisions before finalizing.

EPA should strengthen access to information and reduce the barriers in the proposed provision before finalizing.

Pursuant to proposed § 68.210 EPA proposes to require the owner/operator to provide hazard, incident history, and emergency response information to a member of the public who lives within 6 miles of the stationary source, in the language requested, within 45 days of the request.<sup>226</sup> The rule will also require a facility to notify the public on the facility's website, social media or other publicly accessible means that information is available this way – with instructions on how to request it, along with information on community preparedness, shelter-in-place and evacuation procedures. The rule proposes to delay compliance with this provision for 3 years.

EPA, the CSB, and other safety experts have long recognized the importance of community access to information about RMP facilities and hazards.<sup>227</sup> Yet, EPA still proposes to make a facility the gatekeeper to access this basic information. The practical problems with this provision are myriad. The 6-mile limitation and the requirement to seek information directly from a facility would cut some of the most affected people out of information access – when the law directs that information is supposed to be public. EPA simply has no lawful or rational justification for restricting access to public information as this provision would do.

EPA should revise this provision so that a facility cannot easily deny information to a community member, so that residency within a specific radius is not the only basis for access to the information, and so that a community member can access all non-OCA RMP data without restriction.

The practical effect of this proposal is that it would require an individual community member seeking information central to their health and safety to go ask a facility for this

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<sup>226</sup> Proposed 68.210 (would require facility to provide: (1) regulated substances information held in a process; (2) safety data sheets for all regulated substances at the facility; (3) accident history information – from the last 5 years; (4) emergency response program information: (i) whether the source is a responding or non-responding source, (ii) name and phone # of local emergency response org with which the owner/operator last coordinated emergency response (pursuant to 68.180), (iii) for (responding) sources subject to 68.95, procedures for informing the public and local emergency response agencies about accidental releases; (5) a list of scheduled exercises required under 68.96; (6) LEPC contact info).

<sup>227</sup> See, e.g., EPA 2016 Proposed Rule, 81 Fed. Reg. at 13,677-68 (“Ensuring that communities, local planners, local first responders, and the public have appropriate chemical facility hazard-related information is critical to the health and safety of the responders and the local community”) (citing evidence going back to the 2014 Request for Information, including the CSB Bayer CropScience investigation report).

information. They would have to somehow prove they live within 6 miles of the facility in order to get this. It is unclear how a community member will prove this – or how the 6 miles will even be measured. One facility might interpret this very differently than another and might treat community members quite differently – requiring more information or identification to be shared than necessary, and raising equity concerns. The rule does not say how a community member can seek to appeal if a facility denies them information to which they are entitled or if they would have any recourse. A facility can wait to respond to this for 45 days after the request, no matter how urgent it is for the community member to know the information. After jumping through all of those hoops, a community member would only receive minimal information for their trouble – nothing near the full RMP data that the law requires to be made public. And for community members near many facilities, this would mean that they would have to find out about each one, figure out the appropriate contact information, and then go ask each facility individually for basic information that is supposed to be public as a matter of law.

The proposed 6-mile restriction is highly problematic, illegal, and unjustifiable. EPA’s proposal would deny information to community members who live farther than 6 miles, even if they live, work, engage in recreation, or go to school in the worst case scenario zone for a facility. EPA admits that the worst case impact zone is *more than 10 miles* for 5% of the facilities. Indeed, the Husky refinery disaster led to a 10-mile evacuation.<sup>228</sup> That fact directly contradicts EPA’s proposal. EPA gives no rational justification for not extending information access to the full worst-case scenario zone. Further, providing any geographic limitation provides a justification for a facility to investigate a community member and seek personal information before giving them basic information.

EPA should revise this provision to remove the geographic limitation and residency requirement for someone seeking information. Community members who seek this information may well be wary that their names, addresses, and any other personal information sought by a facility are on a list that facility then has – and there appears to be no restriction or protection of that information in the rule either. Requiring a community member to give an industrial facility – a refinery, a chemical manufacturer or some other corporation in their neighborhood – their personal residence information, or some form of identification that proves their residency, in order to gain access to information raises serious privacy concerns, creates an unjust burden that contravenes core environmental justice principles, and creates an unlawful barrier to access to information that is public as a matter of law.

EPA’s proposal to restrict access to information is unlawful and arbitrary. As EPA correctly recognizes, the non-OCA RMP data is public information as a matter of law under the Freedom of Information Act. 87 Fed. Reg. at 53,602. EPA may not issue a rule that denies any member of the public access to this information. EPA also may not put a burden of access on this information beyond what FOIA allows. FOIA does not allow or require any proof of residency or other identification before the public may access information. 5 U.S.C § 552 (providing for public information to be provided to “any person” making a request, without

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<sup>228</sup> CSB, Husky Refinery Factual Investigation Update (Dec. 2018), [https://www.csb.gov/assets/1/20/husky\\_factual\\_update\\_-\\_2.pdf?16594](https://www.csb.gov/assets/1/20/husky_factual_update_-_2.pdf?16594); CSB, Husky Refinery Explosion and Fire on Apr. 26, 2018 Factual Investigation Update (Aug. 2018), [https://www.csb.gov/assets/1/6/husky\\_factual\\_update.pdf?16317](https://www.csb.gov/assets/1/6/husky_factual_update.pdf?16317).

restriction). It provides access to the public, generally. EPA's proposal to allow a facility, as the surrogate FOIA actor, to restrict access to only certain members of the public thus violates FOIA.

Further, this restriction would also violate section 7412(r)(7)(B). The Act requires EPA to advance prevention, incident detection, and response "to the greatest extent practicable" and to minimize harm from chemical incidents. Allowing only some members of the public in a worst-case scenario zone to access information they need to avoid or respond effectively to an incident fails to meet this test. The "greatest extent practicable" must include, at minimum, ensuring that everyone who needs to know can access the data, at least everyone in a worst-case scenario zone. It also must ensure that people exposed to chemical threats can access the full public RMP data – not only bits and pieces of this.

The restriction of access geographically and based on residency, the placement of a facility as a barrier to access, and the limited availability of the RMP data offered under the provision also are arbitrary and capricious for reasons discussed above. It contravenes the objective of FOIA and section 7412(r)(7) to restrict access to information that is public as a matter of law, to place substantial, unnecessary, and undue burdens on the most affected and most vulnerable people in the event of a chemical disaster, and to suggest that community members outside of a certain area do not have a right to information. These restrictions also conflict with the Administration's commitment to environmental justice which should advance broader, not narrower, access – and yet this proposal is more restrictive than even the 2017 rule.

Further, and importantly, EPA's stated reason for the restriction – a vague goal of protecting "national security" – is an unlawful and irrational justification for the limitations. Congress already struck its preferred balance on security by deciding OCA information would be restricted in section 7412(r), and all other RMP information would be publicly available. EPA has not explained and cannot explain why it needs to restrict information that Congress has already decided should be public, without concern about security risk. Further, there is no evidentiary or rational basis for restricting this information. There is no evidence that community members have ever caused a chemical disaster much less that they pose any security risk – their homes, their children's schools, their parks, playgrounds, and houses of worship are at risk in the event of a chemical incident whether accidental or intentional. Community members are the people who are likely to take the greatest care with the information, to use it to seek to prevent disasters and to ensure effective detection, response, and harm minimization, just as the Act directs. Further, much information has been made public in the past in ways that those seeking to do harm could well have accessed it, without causing any known security breaches.

The best way to shore up a facility against a security risk, or an accident, is the same: EPA should focus on eliminating hazards by requiring implementation of all available and practicable risk mitigation measures, including inherently safer technologies, processes, and chemicals – as discussed above. Removing a facility as an attractive target for terror would be an appropriate way of addressing security – not denying information to members of the public seeking to advance safety and protect their families from harm. Another valuable way to address any security risk is to provide full public transparency and give facilities more incentive to prevent disasters by reducing or minimizing hazards up front.

It is surprising that the proposed rule, if there is any security concern, does not address that directly. Cybersecurity, for example, is an area where EPA could require more to shore up and harden a facility from risk – yet the proposal does not address this at all.<sup>229</sup> EPA cannot use security, if it is an issue at all, as a justification for denying information access while failing to do all it can to advance security through eliminating hazards and requiring other prevention measures.

EPA’s proposal to delay information access for 45 days after a request, and to require compliance after three years is also unlawful and arbitrary. Community members need information now – not three years from now. 45 days is far too long for a community member to have to wait for basic hazard information. EPA has failed to justify these delays when the provision would simply require a facility to provide only a portion of the information it already regularly reports to EPA itself. EPA has failed to show three years is the most expeditious compliance date practicable, or that three years is required to implement this provision.

And, EPA’s rule recognizes the need but does not plainly require providing multilingual access to community information.

Therefore, before finalizing this provision, EPA should:

- *Remove the geographic residency limitation on information access, or, alternatively, at least extend this to anyone at a home, school, nonprofit, or business in the worst case scenario zone for each facility (10 miles or more) – including first-responders;*
- *Require a facility to provide information to all community organizations or officials who request it with an address in the worst-case scenario zone for a facility, including those at a school, daycare center, health care provider, hospital, nursing home, library, community center, nonprofit organization, business owner, local workers, first-responders, house of worship, local government official or other community leader;*
- *Require a facility to provide all non-OCA RMP data – including all information required to be created under this rule;*
- *Require a facility to provide information within 5 business days of the request;*
- *Require a facility to provide information in languages other than English if EPA receives a request in another language;*

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<sup>229</sup> See, e.g., S. Neuman, *What We Know About the Ransomware Attack on a Critical U.S. Pipeline*, *Houston Public Media*, NPR (May 11, 2021, 9:33am), <https://www.houstonpublicmedia.org/articles/news/energy-environment/2021/05/11/397892/what-we-know-about-the-ransomware-attack-on-a-critical-u-s-pipeline/>; see also Air Alliance Houston et al. Comments of Aug. 23, 2018 at 130 & n.355; White House Fact Sheet: Biden-Harris Administration Expands Public-Private Cybersecurity Partnership to Chemical Sector (Oct. 26, 2022), <https://www.whitehouse.gov/briefing-room/statements-releases/2022/10/26/fact-sheet-biden-harris-administration-expands-public-private-cybersecurity-partnership-to-chemical-sector/> (discussing new “Chemical Action Plan” to assess and address the chemical sector’s cybersecurity practices, including at “high-risk chemical facilities that present significant chemical release hazards”).



- *Set clear and specific requirements and a process for requesting and receiving information, tracked by EPA to ensure a facility does not require more than is needed, with an appeal process if information is denied to a requestor;*
- *Require each facility to provide information through the local community alert system annually before any incident occurs, to everyone living within or at a business or nonprofit within the worst case scenario zone to notify them that their location is near a facility, its name, and details on how to access safety information about that facility.*

#### B. RMP Access Database Proposal

Commenters strongly support EPA’s proposal to make non-restricted RMP information publicly available in a readily accessible format, with annual updates, like other EPA databases. Commenters urge EPA to provide all information Congress has directed to be made publicly available online, instead of further restricting access beyond what is already provided by law. In section 7412(r)(7)(H), the statute makes clear that only access to “off-site consequence analysis information” shall be restricted in any way – and that EPA must follow certain criteria in determining how to provide access to that information.<sup>230</sup> The statute does not restrict or direct EPA to consider restricting any of the non-OCA information – which is only one part of the information in the RMP dataset.

Rather, as EPA admits, FOIA requires public disclosure of the non-OCA RMP data – and EPA has regularly provided this in response to FOIA requests. 87 Fed. Reg. at 53,602; 5 U.S.C. § 552(a)(2)(D)(ii)(II). Indeed, EPA has provided these data at least 242 times since 2015 alone – an average of 35 times per year. 87 Fed. Reg. at 53,602. FOIA directs that after three or more requests for public information, the agency must make the information “available for public inspection in an electronic format.” 5 U.S.C. § 552(a)(2)(D)(ii)(II). Based on the law, the public interest in this information and the value of the information to community members, and the multiple regular requests for the data it receives, EPA must simply make the entire non-restricted public RMP database available. It is, therefore, essential that EPA move quickly to create and release this database and make it publicly available and accessible by no later than the end of 2023.

Further, making this RMP data available online would also advance core objectives of section 7412(r)(7). This would remove significant barriers to information that workers, community members, first-responders and local safety experts need to help prevent, detect, respond to, and minimize harm from chemical disasters. Making this information accessible would also advance the important objective of assuring compliance and accountability with EPA’s RMP rule, because people with interest in safety at particular facilities could more easily track compliance with these requirements by accessing RMP plans and submissions of incident

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<sup>230</sup> 42 U.S.C. § 7412(r)(7)(H)(i)(III) (defining OCA analysis information as “those portions of a risk management plan, excluding the executive summary of the plan, consisting of an evaluation of 1 or more worst-case release scenarios or alternative release scenarios, and any electronic data base created by the Administrator from those portions”); *see, e.g.*, 40 C.F.R. §§ 1400.1-1400.13 (promulgated DOJ & EPA, Accidental Release Prevention Requirements; Risk Management Programs Under the Clean Air Act Section 112(r)(7); Distribution of Off-Site Consequence Analysis Information, Final Rule, 65 Fed. Reg. 48,131 (Aug. 4, 2000)).

reports. Providing access to this information will increase the incentive for facilities to comply and to do so promptly and help assure compliance by making it easier for people with an interest in compliance to tell if a facility is not complying. The non-compliance record in incident reporting delay that EPA cites as a basis for the anonymous worker reporting requirements also strongly support making the RMP data fully publicly available. 87 Fed. Reg. at 53,592-93.

Providing online access would also allow for more accessible research by academics and safety experts to boost safety and learn from improvements made at facilities over time.

EPA should ensure that the online database includes all non-OCA RMP data, and also information on: EPA inspections, compliance and enforcement if available, including any pending enforcement matters, consent decrees, settlements, or court orders that may apply to the facility. Doing so would be consistent with the DOJ's environmental justice enforcement strategy and parallel EPA environmental justice strategy commitments and would further boost the incentive to comply and advance accountability.<sup>231</sup>

Finally, EPA must increase information access for affected communities because the CSB's recommendations on this issue carry particular weight and EPA must respond to incorporate them or fulfill its statutory obligation to justify not doing so. 42 U.S.C. § 7412(r)(6)(I).<sup>232</sup>

EPA should also further act to broaden access to off-site consequence (OCA) data at least for people who live and work in worst-case scenario RMP zones. The reading rooms alone provide insufficient access to this important information for community members who are most affected. Much of the old information on this has been in the public sphere for a long time – but many communities do not have the most updated information. Many people in these zones have no idea that they are threatened by an RMP facility and do not have the information they need to be able to try to plan in any way to protect themselves or their families in the event of a worst-case scenario. Keeping what could be life-saving information away from the people who most need it does nothing to protect safety or national security.

The information on the number or locations of people in the worst-case scenario zones near particular facilities is not publicly available. Most Americans are in the dark about their personal exposure to RMP facilities and chemical incidents until after they happen, when it is too late. EPA has not informed or shared a public list of the communities where the 177 million Americans at greatest risk live. So, most people who are at the greatest risk—and would die or face injury during a worst-case scenario RMP incident—do not know they are in this group, that the risk exists, or what, if anything, they should do if this type of incident begins in their community. It is essential for EPA to protect the public's health and the public's right to know about the risks they face and for EPA to evaluate and strengthen protection based on the hazards,

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<sup>231</sup> See EPA OECA Memo Re: Strengthening Enforcement in Communities with Environmental Justice Concerns (Apr. 30, 2021), <https://www.epa.gov/sites/default/files/2021-04/documents/strengtheningenforcementincommunitieswiththejconcerns.pdf>; DOJ Environmental Justice Strategy (May 5, 2022), <https://www.justice.gov/asp/page/file/1499286/download>.

<sup>232</sup> See CSB Oct. 2022 Comments, <https://www.regulations.gov/comment/EPA-HQ-OLEM-2022-0174-0166>.

including by eliminating the worst hazards to the greatest extent possible. The public has neither the information nor the power to try to protect themselves and their families.

## 12. OTHER AREAS OF TECHNICAL CLARIFICATION (SECTION IV.D)

### A. EPA should finalize the proposed technical clarifications: Process Safety Information, Hot Work Permits, Storage Incident to Transportation, RAGAGEP codes

Commenters support EPA's proposals to: (1) clarify that the requirement to keep process safety information up to date explicitly applies to Program 3 processes, proposed 40 C.F.R. § 68.65; (2) require the retention of hot work permits for five years, § 68.85; (3) to make clear that storage (such as an a rail container) of any regulated substance anywhere on site for over 48 hours will trigger or contribute to RMP rule coverage if removed from motive power; § 68.3 (stationary source definition), and (4) the improvements on RAGAGEP – (a) to harmonize the Program 2 and 3 provisions, 68.48(b) and 68.65(d)(2), (b) to make clear that a process hazard analysis must include an analysis of the most recently promulgated RAGAGEP and any gaps between the facility's design, maintenance, or operation and the most current version of RAGAGEP, 68.67(c)(10), and (c) to require facilities to specify why any PHA recommendation associated with adopting most current codes, standards, or practices (RAGAGEP) are not implemented (if not implemented), 68.175(e)(9). EPA appropriately proposes the effective date of the final rule as the compliance date for these technical changes.

EPA should finalize these provisions because they advance the Act's directive to ensure prevention to the greatest extent practicable and also the requirement to assure compliance as expeditiously as practicable, § 7412(r)(7)(B).

The CSB recently released additional investigation reports that include important recommendations on hot work safety, from the fire at Evergreen Packaging Paper Mill on September 2020<sup>233</sup> and the Sunoco Logistics Partners Flash Fire in Nederland, TX in 2016.<sup>234</sup> These reports show the need for the hot work permits should be retained to ensure compliance, as EPA has proposed.

In particular, there is strong evidence showing the need for EPA to ensure that the storage incident to transportation exemption cannot cause harm – as some facilities have had storage containers sitting on site for many days, weeks, or even months without implementing any RMP protection from the hazardous chemicals they contain.<sup>235</sup> It is also important to add the RAGAGEP requirements because codes, standards and practices advance over time and facilities

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<sup>233</sup> CSB, Fire During Hot Work at Evergreen Packaging Paper Mill, No. 2020-07-I-NC (Sept. 24, 2021), <https://www.csb.gov/file.aspx?DocumentId=6161>.

<sup>234</sup> CSB, Flash Fire and Explosion at Sunoco Partners Nederland Terminal, Incident Date: Aug. 12, 2016, No. 2016-03-I-TX (Sept. 27, 2022), <https://www.csb.gov/sunoco-logistics-partners-flash-fire/>.

<sup>235</sup> See, e.g., <https://www.trccompanies.com/insights/the-epas-risk-management-program-for-railroads-and-the-incident-to-transportation-exemption/>.

must be required at least to assess and address those in some way, as EPA proposes. Otherwise, the oldest facilities are likely to become the least safe.

B. EPA should further strengthen these requirements: Storage Incident to Transportation, RAGAGEP codes.

Commenters call for EPA to strengthen these proposed changes by: (1) further narrowing the storage incident to transportation exemption, (2) expanding the stationary source definition; (3) expanding the scope of applicability of the RAGAGEP requirement to cover all facilities, and requiring implementation of RAGAGEP.

(1) EPA should make clear that storage of RMP chemicals at a facility for longer than 48 hours *even if connected to motive power* triggers RMP coverage as a stationary source. It is unclear why EPA is limiting in that way – when the mere fact of connection to power does not show this information has moved from storage to transportation. If indeed this triggers the jurisdiction of the Department of Transportation (DOT), then EPA should commit to assure RMP protection applies right up to that jurisdictional limit, *and* EPA should work with its sister agency to ensure protection for communities from that sister agency from chemicals once they are in transportation. Doing that would be consistent with the Act which directs EPA to consult with DOT. *See* 42 U.S.C. 7412(r)(7)(D).

There is strong concern in communities like Manchester in Houston, TX – which is surrounded by rail tracks – that facilities often allow containers to sit for days or longer on the tracks, sometimes with the engine running. This is a serious safety concern that EPA should address under the RMP program and community group leaders, like Texas Environmental Justice Advocacy Services (t.e.j.a.s.) and Sierra Club, would be valuable for EPA to talk further with about this issue so that EPA can ensure it fully resolves this problem to the greatest extent practicable, as its authorizing provision directs (7412(r)(7)(B)).

There is also a serious concern about allowing a 48-hour window – and EPA should shorten this to the shortest possible time needed to advance the Act’s core prevention goals and trigger RMP protections. Once the container is disconnected from motive power, the RMP requirements should be triggered even though the transportation safety issues should be regulated by DOT at least if a facility receives or transfers any RMP chemicals at least once in any calendar year. The fact that one container may move on quickly does not offset the bigger picture of the cumulative impacts and risks from many containers arriving at and leaving a site, on various timeframes. For any facility that is regularly using, storing and managing RMP chemicals that are being transported farther on, it is essential for that facility and site operator to comply with the RMP requirements as well as satisfy any DOT safety requirements applicable to the transportation component. Further, there is no indication that DOT is appropriately addressing this concern and EPA should work with them to do so, to ensure workers and communities’ health and safety do not fall through the cracks of any jurisdictional question.

CSB recommendations support EPA further restricting the exemption. The CSB's recommendations on this issue carry particular weight and EPA must respond to incorporate them or fulfill its statutory obligation to justify not doing so. 42 U.S.C. § 7412(r)(6)(I).<sup>236</sup>

(2) EPA should also strengthen the definition of “stationary source” to expand the coverage facility-wide so that a facility with any covered process (i.e., a facility covered in part) under the RMP must be covered in full. When incidents have occurred at facilities that are only partially covered and have caused fires and explosions involving the rest of the facility, this has shown that EPA must expand coverage so any facility covered in part is fully covered by the RMP rules.

To do so, EPA should ensure any facility that stores or uses a chemical regulated under the RMP must follow RMP requirements for all processes and all equipment and must ensure that all hazardous chemicals at the site are accounted for – including any that could cause risk, fire, explosion or release of the RMP covered chemicals.<sup>237</sup> When a facility is already using a hazardous chemical in part of the facility, not covering the rest of the facility brings absurd results. The effectiveness of RMP is dramatically undermined or even negated.

The infamous 2013 West, Texas fertilizer plant explosion and the 2017 Arkema fire are two of the most well-known examples of facilities that were only partially covered by EPA's rules.<sup>238</sup> As another example, a fire that happened at a storage building at a chemical facility forced workers to evacuate.<sup>239</sup> And on July 27, 2021, another fatal chemical disaster occurred in LaPorte, Texas, at an RMP petrochemical manufacturing facility, LyondellBasell Acetyls LLC, that appears to have been only covered in part.<sup>240</sup> The CSB deployed a team to respond to this incident.<sup>241</sup> At least some of the chemicals reported to have been involved in this incident do not appear to be RMP-covered chemicals, showing that EPA must expand coverage (as further discussed below).

And, although a facility may be covered under RMP because of HF, if the wider facility is not covered, there are potential dangers of grim hazards. Such potential can be seen by several

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<sup>236</sup> See CSB Oct. 2022 Comments, <https://www.regulations.gov/comment/EPA-HQ-OLEM-2022-0174-0166>.

<sup>237</sup> See CHEM. SAFETY BD., EXXONMOBIL TORRANCE REFINERY 50 (2015) (requiring risk assessments only for units within 50 feet of the intended ESP location).

<sup>238</sup> CSB, Investigation Report, Organic Peroxide Decomposition, Release, and Fire at Arkema Crosby Following Hurricane Harvey Flooding (Aug. 29, 2017), Report No. 2017-08-I-TX (May 2018), <https://www.csb.gov/arkema-inc-chemical-plant-fire/>; CSB, Investigation Report, West Fertilizer Company Fire and Explosion (Apr. 17, 2013), Report No. 2013-02-I-TX, <https://www.csb.gov/west-fertilizer-explosion-and-fire/>.

<sup>239</sup> *Fire Forces Evacuation of Dow Chemical Plant in Louisiana*, POWDER BULK SOLIDS (Apr. 29, 2018), <https://www.powderbulksolids.com/wire-cloth/fire-forces-evacuation-dow-chemical-plant-louisiana>.

<sup>240</sup> P. DeBenedetto & K. Watkins, *2 Dead, 30 Hospitalized After 'Mass Casualty' Incident At LyondellBasell Chemical Plant Near La Porte*, Houston Pub. Media (July 27, 2021), <https://www.houstonpublicmedia.org/articles/news/energy-environment/2021/07/27/404355/at-least-2-dead-after-leak-at-lyondellbasell-chemical-plant-in-la-porte/>; <https://rtk.rjifuture.org/rmp/facility/100000158553>.

<sup>241</sup> <https://www.csb.gov/csb-deploying-to-lyondellbasell-incident/>.

of the near misses of HF tanks in refineries.<sup>242</sup> A recent explosion at the Pryor gas well killed five workers.<sup>243</sup> CSB, among many things, lamented that the RMP does not cover the oil drilling process – and EPA should change this.<sup>244</sup> Incidents for which CSB is currently conducting investigations show that facilities that are covered under the RMP *and* those that are not covered under the RMP still are at risk of dangerous accidents.<sup>245</sup>

(3) Finally, EPA should expand the scope of the RAGAGEP provisions to cover all facilities for similar reasons as discussed above on employee participation. The proposal strengthens the RAGAGEP provisions only for Program 3 facilities, but Program 2 processes can cause on and off-site harm, and Program 1 facilities can cause on-site harm, even injuring or killing workers. All facilities should perform the assessments, should follow the design and maintenance requirements, and make the demonstrations the proposed rule would require.

In addition, all facilities should be required to implement RAGAGEP to protect fenceline communities and workers. The proposed rule appears to require this in 68.65(d)(2), but then makes it sound in other provisions that a facility can somehow attempt to justify not operating based on RAGAGEP. EPA must ensure full implementation is required.

As the statute directs, all regulations promulgated pursuant to subsection 7412(r) “shall to the maximum extent practicable . . . be consistent with the recommendations and standards established by the American Society of Mechanical Engineers (ASME), the American National Standards Institute (ANSI) or the American Society of Testing Materials (ATSM).” 42 U.S.C. § 7412(r)(7)(C). This provision directs EPA to ensure RAGAGEP is fully included in the assessment and process safety requirements, and also mandates implementation “to the maximum extent practicable.” It would violate this provision for EPA not to require full assessment and implementation of RAGAGEP.

Further, it would violate section 7412(r)(7)(A) and (B) for EPA not to require assessment and RAGAGEP at all facilities to assure prevention of disasters due to outdated code compliance, and would violate these provisions not to require implementation “to the greatest extent practicable.” Applying the assessment and demonstration provisions only for Program 3 is not sufficient to protect public health and safety and is nowhere near “the greatest extent practicable.” EPA has not so found or demonstrated. The same is true for implementation – which EPA has not shown is required to the greatest extent practicable.

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<sup>242</sup> See, e.g., CSB, *Philadelphia Energy Solutions (PES) Refinery Fire and Explosions* (June 21, 2019), <https://www.csb.gov/philadelphia-energy-solutions-pes-refinery-fire-and-explosions/> (injuring five workers); Danielle Kaeding, *3 Years After an Explosion Rocked Wisconsin’s Only Refinery, Superior Is Still Waiting For Answers*, WI. PUB. RADIO (Apr. 28, 2021), <https://www.wpr.org/3-years-after-explosion-rocked-wisconsins-only-refinery-superior-still-waiting-answers> (injuring thirty-six workers).

<sup>243</sup> CSB, Investigation Report: Gas Well Blowout and Fire at Pryor Trust Well 1H-9 13 (2019), <https://www.csb.gov/pryor-trust-fatal-gas-well-blowout-and-fire/>.

<sup>244</sup> *Id.*

<sup>245</sup> See Table 1, above, showing Ongoing CSB Investigations.

### 13. REGULATORY IMPACT ANALYSIS (SECTION II.D)

As discussed above, the statute does not require EPA to perform a cost-benefit analysis or to find, as EPA does, that “the costs of the rule are reasonable in comparison to its benefits.” Draft RIA at 10. The draft Regulatory Impact Analysis (RIA) well supports EPA’s proposed rule and shows it is practicable and should be finalized but it does not show that the rules should not be stronger to satisfy the Act. What is “reasonable” is different than what is “the greatest extent practicable” -- and the statute directs EPA to achieve the latter. 42 U.S.C. 7412(r)(7)(B).

EPA’s RIA correctly finds significant benefits from the proposed rule – and additional benefits would accrue if EPA were to strengthen the proposal as Commenters urge. EPA’s 2017 RIA provides additional evidence on the benefits of some of the provisions proposed here, that EPA should cite and rely on as well. It is particularly important that EPA has recognized in the RIA that there is serious, disproportionate harm and risk under the existing RMP rules for “historically marginalized communities.”

Still, EPA cannot and should not use that document as a justification for not requiring stronger improvements. The RIA is incomplete and fails to fully assess benefits. It also puts too much weight on particular costs that are not relevant or appropriate to consider in this regulatory process. EPA should expand the benefits analysis in the RIA and better account for the significance of unquantified benefits to recognize even more benefits would come from the proposal. The benefits of saving lives, preventing injuries and toxic exposure, as well as ecological harm and harm to people from related health and welfare impacts should be given more weight in EPA’s analysis and EPA should find that these support the improvements proposed in these comments as well – and show the need to issue a stronger rule to assure the strongest possible protection from chemical disasters, as the Act directs.

In particular, EPA should recognize the benefit of preventing harm from toxic exposure from chemical disasters. EPA’s Regulatory Impact Analysis does not address the additional benefit of avoiding toxic exposure. This is partly because EPA’s currently reported RMP incident data includes no measure or even recognition of the toxic exposure for people in their homes and neighborhoods whose harm was not counted, even if they felt sick. There is also no measure in EPA’s database of the ongoing repeated and cumulative exposure for community members who have faced multiple fires, explosions, and toxic releases in their community – as in places like the Houston Ship Channel, Port Arthur, Texas, Cancer Alley in Louisiana, West Virginia, and many other RMP hot spots where incidents unfortunately happen like clockwork. The lack of data on this exposure is in great part due to a lack of air monitoring or any health impact assessment or public health survey by EPA, the CSB, and local governments as part of emergency response and investigation of these incidents.

The fact that there is limited data on toxic exposure does not justify ignoring this harm when EPA knows it is there and just has failed to measure or attempt to estimate it. For example, the CSB found that it could not make findings on health effects from toxic exposure due to a lack of available data but that “[s]ome emergency responders and members of the local community



were concerned about potential health effects from the vapor cloud emitted by decomposing organic peroxide.”<sup>246</sup>

EPA should regulate based on the recognition that every incident that included an air release near where people live, work, play or go to school likely included some unquantified hazardous exposure for people nearby, as news reports and public complaints illustrate. EPA should follow the Precautionary Principle and take a protective approach to save lives and prevent injuries. For example, a series of two explosions at Port Neches in Texas injured three people in November 2019 and caused a vapor cloud that ignited and caused damage including to houses offsite. The explosions disturbed the residents’ lives and forced residents within a half mile of the facility to evacuate and there was a shelter-in place order. Schools had to close to clean up debris and repair school buildings. This appears to have been a preventable incident because the monitors that were installed at the facility did detect increased 1,3-butadiene emissions in the months leading up to the explosions – but so far there is no quantified information on the total exposure before, during or immediately following the incident.<sup>247</sup>

At least every incident that had a shelter-in-place or evacuation order must be recognized as a likely toxic exposure incident for some people – as it is impossible in these circumstances for everyone in the area to avoid all exposure to air. Some communities, like Charleston, WV (surrounded by mountains and a river) and Manchester in Houston (locked by train tracks), have little or no escape route, and the only reason they are sheltering is not because it is safe, but because there is nowhere to go.<sup>248</sup> EPA cannot rationally ignore toxic exposure as additional harm from incidents. In EPA’s air office and IRIS program there are health scientists who regularly assess the acute risk from hazardous air pollution. Even if there are no immediate injuries, exposure to hazardous chemicals increases the risk of health effects in the short-term and long-term.

EPA appropriately recognizes that the proposed rule will have environmental and ecological benefits, though it does not quantify these benefits. Commenters found approximately 111 incidents in the RMP database since 2004 showing environmental or ecological harm (where harm to people or property was not reported). EPA should at least assess these impacts as

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<sup>246</sup> See, e.g., CSB, *Organic Peroxide Decomposition, Release, and Fire at Arkema Crosby Following Hurricane Harvey Flooding*, Report No. 2017-08-I-TX, at 115 (May 2018), <https://www.csb.gov/arkema-inc-chemical-plant-fire/> (attached).

<sup>247</sup> Kiah Collier, *Ahead Of Explosion, Port Neches Plant Reported An Increase Of Rogue Emissions Of Explosive Gas*, HOUSTON PUBLIC MEDIA (Jan. 30, 2020), <https://www.houstonpublicmedia.org/articles/news/2020/01/30/358950/ahead-of-explosion-port-neches-plant-reported-an-increase-of-rogue-emissions-of-explosive-gas/>; Merrit Kennedy, *Massive Explosion Rips Through Texas Chemical Plant*, NPR (Nov. 27, 2019), <https://www.npr.org/2019/11/27/783263942/massive-explosion-rips-through-texas-chemical-plant>; CSB, *Fires and Explosions at TPC Group Port Neches Operations Facility, Incident Date: Nov. 27, 2019, No. 2020-02-I-TX, Factual Update* (Oct. 29, 2020), [https://www.csb.gov/assets/1/17/tpc\\_factual\\_update\\_10-29-2020.pdf?16614](https://www.csb.gov/assets/1/17/tpc_factual_update_10-29-2020.pdf?16614) (attached).

<sup>248</sup> See, e.g., *A Disaster In the Making* (Apr. 3, 2018), <https://earthjustice.org/features/toxic-catastrophes-texas-national-chemical-disaster-rule> (see the story of Pam Nixon, WV); see also Decl. of Juan Parras, Texas Environmental Justice Advocacy Services (2017) (attached).



ecological damage likely also indicates some toxic exposure for people who live, work, or visit the areas near the facility during and after these incidents.

#### **14. OTHER: ACCOUNTABILITY AND COMPLIANCE ASSURANCE**

As EPA works to finalize the rule, EPA must strengthen accountability and add “built-in” compliance requirements.<sup>249</sup> EPA recognizes serious lack of accountability by RMP facilities – which has led to delay in incident reporting that qualifies as a violation of the RMP rules and of the Clean Air Act. In addition to expanding information access for workers and communities, and adding the important employee participation requirements, EPA must also strengthen the proposed rule in other important ways: (1) ensuring Title V permits must fully incorporate all RMP requirements for facilities covered by both Title V and the RMP; and (2) strengthening other reporting and compliance provisions.

- A. EPA should amend § 68.215 to treat RMPs and RMP rules like all other Title V requirements for facilities covered by Part 68 and Title V.

EPA must revise the existing RMP Title V rule to make clear that Title V permits must include terms and conditions, including all necessary monitoring and reporting to assure compliance with all applicable RMP requirements.

People near the RMP facilities that are also major sources of air pollution must receive the full benefit of the Title V Clean Air Act operating permit process. Currently, for major sources subject to Title V – of which there are nearly 1,900 – EPA’s rules do not treat the RMP like any other applicable Clean Air Act requirement. Title V of the Clean Air Act requires permitting authorities to incorporate all applicable Clean Air Act requirements in terms and conditions and requires reporting and monitoring necessary to assure compliance with these requirements.<sup>250</sup> “Applicable requirements” include all standards, emissions limits, and requirements of the Clean Air Act.<sup>251</sup> Title V’s intent is to “substantially strengthen enforcement of the Clean Air Act” by “clarify[ing] and mak[ing] more readily enforceable a source’s pollution control requirements.”<sup>252</sup> As EPA explained when promulgating its Title V regulations, a Title V permit should “enable the source, States, EPA, and the public to understand better the requirements to which the source is subject, and whether the source is meeting those requirements.”<sup>253</sup>

The RMP is an applicable Clean Air Act requirement. Yet, EPA’s existing RMP rule, 40 C.F.R. § 68.215, does not treat it like all other such requirements. Instead, the rule provides that only a minimal statement and compliance certification (or compliance schedule) are required to

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<sup>249</sup> C. Giles, *Next Generation Compliance: Environmental Regulation for the Modern Era* (2022).

<sup>250</sup> 40 C.F.R. § 7661c(a); 40 C.F.R. §§ 70.6(a)(1), (c)(1).

<sup>251</sup> 40 C.F.R. § 70.2.

<sup>252</sup> S. Rep. No. 101-228 at 347, 348 (1990), *as reprinted in* A Legislative History of the Clean Air Act Amendments of 1990 (1993), at 8687, 8688.

<sup>253</sup> Operating Permit Program, Final Rule, 57 Fed. Reg. 32,250, 32,251 (July 21, 1992).

be included in the permit.<sup>254</sup> The rule even allows issuance of a permit to a facility that will have to comply with the RMP that does not include those basic requirements if the permit is issued “prior to the deadline for registering and submitting the RMP.” These requirements are insufficient to assure compliance with a program that is intended to protect the lives and safety of fence-line communities and workers.

EPA should revise this rule (40 C.F.R. § 68.215) to require the RMP rules to be treated just like any other Clean Air Act requirement for facilities regulated by Title V of the Clean Air Act. Doing that should mean that the new RMP rule and the facility’s Risk Management Plan would be included in the Title V permit application and incorporated into the Title V operating permit for major air pollution sources. An air permitting authority would include terms or conditions for monitoring and reporting that are necessary to assure compliance with the rule and plan (or simply include the monitoring and reporting EPA adds in the new RMP rule as terms and conditions in the permit). EPA would retain the authority to review and determine whether to object to a permit for failure to incorporate the RMP rule and plan, as for any other applicable requirements.

Having the new RMP rule (with stronger requirements and mitigation measures) and the facility’s RMP plan incorporated into the permit would elevate the importance of complying with these requirements, by treating them with the same attention that every other Clean Air Act requirement is given in the Title V permitting process. Fully incorporating the RMP requirements under Title V would increase protection for communities by increasing transparency for the requirements applicable to a facility, and thus increasing the incentive for facilities to comply. It would make the RMP requirements more understandable and more enforceable by community members and local governments. It would allow community members to comment on and seek an EPA objection if the RMP was not fully implemented in the permit. EPA could require incorporation into the permit of only the non-OCA portions of the plan and maintain the unique requirements for restricted access to the OCA portions.

This change would have significant benefits at the subset of facilities covered by both the RMP and Title V and would require no more expertise than air permitting agencies already use to process Title V permits. Air permitting agencies would not be writing or evaluating the RMP rules or risk management plans (just as air permitting authorities are not required to write or evaluate EPA air toxics rules or new source performance standards), but would simply be

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<sup>254</sup> 40 C.F.R. 68.215: “Permit content and air permitting authority or designated agency requirements (a) These requirements apply to any stationary source subject to this part 68 and parts 70 or 71 of this chapter. The 40 CFR part 70 or part 71 permit for the stationary source shall contain: (1) A statement listing this part as an applicable requirement; (2) Conditions that require the source owner or operator to submit: (i) A compliance schedule for meeting the requirements of this part by the dates provided in §§ 68.10(a) through (f) and 68.96(a) and (b)(2)(i), or (ii) As part of the compliance certification submitted under 40 CFR 70.6(c)(5), a certification statement that the source is in compliance with all requirements of this part, including the registration and submission of the RMP. ... (c) For 40 CFR part 70 or part 71 permits issued prior to the deadline for registering and submitting the RMP and which do not contain permit conditions described in paragraph (a) of this section, the owner or operator or air permitting authority shall initiate permit revision or reopening according to the procedures of 40 CFR 70.7 or 71.7 to incorporate the terms and conditions consistent with paragraph (a) of this section.”

ensuring these are incorporated into the Title V permit. Air permitting authorities and facilities would simply have to add the RMP rule and plan to the list of other applicable clean air requirements under Title V and treat them the same way, for facilities subject to both Title V and the RMP.

Including the RMP fully in Title V permits would give air permitting authorities more information and ability to assist with oversight of compliance, including by adding additional monitoring or reporting where there is need to do so to assure compliance. And, it would also allow air permitting authorities to simply implement the RMP rule and plan like other EPA clean air rules, and state implementation plans without adding any requirements if not needed. Of course, the stronger and clearer the requirements EPA issues in a new RMP rule and the more guidance EPA offers to assist permitting agencies as needed, the smoother it would be for air permitting authorities to implement this through Title V. Implementation under Title V would occur gradually, as facilities submit new or renewed Title V permit applications. Air permitting authorities would still have a targeted role under Title V similar to other CAA requirements, focused on incorporating the RMP plan and necessary terms and conditions into the Title V permit, while EPA would retain the ultimate power to review or object to both the original RMP and the proposed Title V permit (as it does now).

While EPA has refused to incorporate the 112(r)(1) general duty into Title V permits because only EPA has the ability to enforce that duty, the same is not true for the RMP rules. States, local governments, workers, and community members are able to enforce the RMP rules. So ensuring that they are fully incorporated into the Title V permit advances that goal and is consistent with Title V and with the differences between 112(r)(1) and the regulations under 112(r)(7).

Based on its experience seeing the significant problems under the existing RMP rule, and the need for stronger compliance assurance to be built into the rules, EPA should reevaluate the old permitting rule (40 C.F.R. § 68.215) and recognize that stronger implementation is needed under Title V. Applying only to a subset of RMP facilities, this would be a tailored approach to strengthen compliance at some of the most hazardous RMP facilities that are also major air sources subject to Title V (about 1,891 in the May 2021 RMP Database). Importantly, it would apply to the industry sectors with the highest accident rates, e.g., petroleum refineries, chemical manufacturers, and pulp and paper mills – most of which are major air sources subject to Title V.

Making this change would advance the prevention objective of section 112(r) and the goal of making the Title V permit the primary Clean Air Act blueprint or unified compliance guide for all sources, state permitting authorities, and the public. Without this change, the RMP will continue to be a neglected, harder to enforce, lower compliance program – which is directly contrary to the goal of Clean Air Act 112(r) – to protect health and safety from chemical fires, explosions, and other highly hazardous accidental releases, and to prevent Bhopal-like catastrophes from happening in the U.S.

**B. Strengthen other reporting, compliance requirements.**

EPA properly proposes to expand some reporting requirements but the agency also fails to require some basic reporting or liability admission provisions that would substantially improve

accountability and help assure compliance. In finalizing the rule, EPA should seek review by the enforcement experts within EPA’s Office of Enforcement and Compliance Assurance (OECA) and ensure compliance is built into this rule as expert Cynthia Giles has explained is essential for health and safety regulations to achieve their goal.

EPA should also implement the recommendations of the CSB which has called for more detailed reporting on the process hazard analysis and incident reporting. 42 U.S.C. § 7412(r)(6)(I).<sup>255</sup>

The importance of strong compliance-focused design could not be more important than here, in the Risk Management Program where people can die if facilities do not comply. Therefore, in writing this rule, EPA should build in sufficient reporting, monitoring, and automatic penalties so that it is easy for anyone – including EPA, state and local governments, workers, and community members— to be able to tell at any time whether a facility is meeting the regulatory requirements or is in violation. This is a program where the goals need to be met fully and continuously, which requires strong compliance, accountability, and enforceability to be built in from the start.

Former EPA official and enforcement expert Cynthia Giles researched and explained the value of this approach, after finding widespread noncompliance under the Clean Air Act and other environmental statutes.<sup>256</sup> As her research found in spring 2020, “noncompliance with environmental rules is worse than you think” – finding that “[s]ignificant [environmental law] violation rates of 50% to 70% are not unusual.”<sup>257</sup> These data show that strengthening the compliance design of the RMP rule will be an important way to improve health and safety by providing the incentive to comply and prevent incidents and harm resulting from failures to comply.

Currently, EPA has limited resources but even with a massive infusion of funds, EPA still could only engage in active enforcement each year at some of the 11,760 existing RMP facilities. And, as discussed earlier, enforcement of the existing rules, alone, has failed to address serious problems in a timely way or to prevent future problems. Writing compliance-design focused rules will increase compliance without any further action from EPA, serve the core goal of preventing incidents before they occur, and provide more information EPA can use to assist in enforcement where this is needed.

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<sup>255</sup> See CSB Oct. 2022 Comments, <https://www.regulations.gov/comment/EPA-HQ-OLEM-2022-0174-0166>.

<sup>256</sup> C. Giles, Harvard Univ. Env’tl & Energy Law Program, Next Generation Compliance: Environmental Regulation for the Modern Era (2020), <https://eelp.law.harvard.edu/2020/09/next-generation-compliance-environmental-regulation-for-the-modern-era/>; see also C. Giles, Next Generation Compliance: Environmental Regulation for the Modern Era (2022).

<sup>257</sup> C. Giles, Harvard Univ. Env’tl & Energy Law Program, Next Generation Compliance: Environmental Regulation for the Modern Era, Part 2: Noncompliance with Environmental Rules Is Worse Than You Think at 3, (Apr. 27, 2020), <http://eelp.law.harvard.edu/wp-content/uploads/Cynthia-Giles-Part-2-FINAL.pdf>.

For facilities that have repeated problems, including in the chemical, petroleum refinery, and petrochemical sectors, stronger compliance design is especially important. There seems to be little or no incentive for these facilities to make the investment, to take the time, to involve workers, or to make other process safety changes needed to avoid these problems. These facilities are ticking time bombs and yet they are only reporting RMPs to EPA every five years. Increased reporting, automatic liability admission, and penalty requirements, as well as stronger mechanisms for workers and communities to evaluate and assist in assuring compliance, are especially needed to end the cycle of incidents in these sectors.

For the subset of facilities that have not had incidents during the last five to ten years, strong compliance design is also important. Without adequate compliance reports, worker near-miss reporting, and permit implementation, EPA may not be able to see early warnings of problems at facilities where it might not otherwise anticipate an incident occurring.

Therefore, to fulfill the goal of assuring strong compliance design in the new rule, EPA should require more frequent reporting, increased monitoring, automatic liability admission, corrective action, and penalty requirements, and increased transparency and review during the permit process, as well as third-party auditing. In particular:

**More frequent compliance reporting** is needed because five years is far too long to go without any compliance updates to EPA or the public. In addition to restoring the important third-party compliance audit requirements that the CSB recommended and EPA recognizes are needed,<sup>258</sup> EPA should require electronic, semi-annual compliance reports to EPA regarding compliance with all components of the rules – including the requirement to coordinate annually with first-responders, the requirement to perform emergency response exercises, the requirement to report incidents within six months, and other new requirements that EPA should add in this rule discussed above, including the STAA, natural hazard, power loss, stationary source siting, employee participation, compliance audit, incident investigation, emergency response plan and exercise, and community information and notification requirements.

Semi-annual compliance reports are required for all major air pollution sources under Title V. EPA has an electronic system in place for these reports – and that system has already received 56,214 submissions since 2012.<sup>259</sup> Any facilities that use, store, or manage highly hazardous chemicals should have full ability to submit regular compliance reports under the new RMP rule. Going through the reporting process is an important compliance check for the facility and requiring this regularly would likely increase compliance and provide earlier information to EPA of any problems with compliance. As EPA's air office has recognized, electronic reporting can advance compliance and protection of the environment, simplify reporting and make more accurate data available more quickly to EPA, air agencies, and the public.<sup>260</sup> OLEM should

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<sup>258</sup> See 82 Fed. Reg. 4675 (40 C.F.R. §§ 68.58, 68.79); see also 81 Fed. Reg. 13,654-62 (citing CSB findings on lack of rigorous compliance audits as contributing factor behind the 2005 BP Texas City refinery explosion and fire).

<sup>259</sup> See CEDRI, *Compliance and Emissions Data Reporting Interface*, EPA, <https://www.epa.gov/electronic-reporting-air-emissions/cedri>.

<sup>260</sup> EPA, Petroleum Refinery Sector NESHAP, Final Rule, 80 Fed. Reg. 75,178, 75,185 (Dec. 1, 2015) (explaining addition of electronic reporting of performance tests to EPA).

follow the air office's lead and incorporate compliance reports into the same system as the new electronic RMP database that EPA has recognized the need to create.

**An automatic liability admission and penalty for failing to meet any requirements of the rules, including reporting requirements.** The delay in reporting incidents is an example showing why automatic requirements are needed. The lag in reporting incidents shows that many facilities are not satisfying the 6-month incident reporting deadline in 40 C.F.R. § 68.195, yet there appears to be little or no consequence for these failures and for this delay. Failing to get this information in a timely way may prevent EPA from performing a relevant inspection and requiring corrective action and may lead to serious harm. Requiring a facility to admit the problem and pay an immediate penalty would provide a stronger incentive not to commit the problem. Adding an automatic penalty for violating other important safety requirements – including annual coordination with first responders, emergency response exercises, and the new STAA, natural hazard, power loss, stationary source, incident investigation, emergency response plan and exercise, and community information and notification requirements, and other requirements discussed above and proposed in this rule – will have similar benefits and is essential to build compliance into the rule itself.

**Escalation of the penalty** for failure to admit liability and pay within 5 days of a violation will further increase the incentive to comply and to correct a problem in a timely way. Having more timely information and more immediate corrective action will improve safety.

Commenters raised the importance of considering these issues in their listening session comments in July 2021, but EPA does not appear to have addressed them in this rulemaking. EPA must consider and address these comments now to satisfy the Act and principles of reasoned agency decision-making.

Due to the significant non-compliance concerns EPA has identified, the serious incident record across many industry sectors, and the severe hazards regulated under this program, it is vital for EPA to require built-in compliance measures. Failing to do so would violate the section 7412(r)(7) prevention objective and the requirements in section 7412(r)(7)(A) and (B) to assure prevention and to do so “to the greatest extent practicable.” Setting strong built-in compliance requirements removes any delay between a violation and a penalty, dramatically increases the incentive to comply and protect safety without violation, and assures that at least some corrective action occurs whenever a violation of this important program happens. It would also improve transparency and accountability to make it easier for EPA, a state or local government, or a worker or community member to enforce the requirements against a non-compliant facility.

## **15. OTHER ADDITIONAL CONSIDERATION: FENCELINE MONITORING (SECTION V)**

EPA should promptly propose and add requirements for fence line monitoring of RMP facilities. The agency “acknowledges the need for considering expanding fence line monitoring for RMP-regulated facilities.” 87 Fed. Reg. at 53,607. Indeed, there is a strong need for EPA to require this and fence line monitoring methods are readily available for certain highly hazardous RMP substances.

EPA has legal authority to require monitoring under sections 7412(r)(7)(A) and (B), and indeed, these provisions require EPA to do so – as EPA must assure prevention “and detection of accidental releases . . . to the greatest extent practicable.”<sup>261</sup> EPA properly recognizes this authority. TBD at 25; *see also* CIDA Comments (July 2021) at 50-51.<sup>262</sup>

EPA has long heard from fenceline communities calling for fenceline air monitoring under the RMP. EPA, Technical Background Document (TBD) at 22 & n. 44 (citing 2014 RFI comments in support of fenceline monitoring).<sup>263</sup> The Technical Background Document accompanying the proposed rule shows the thought, care, and significant evaluation that EPA staff have already put into this question. It is unclear why this is not yet in proposed regulatory language but this detailed discussion illustrates the need for EPA to do so promptly. Commenters call on EPA to recognize the important work already done by staff on this issue and turn this into regulatory language through a supplemental proposal so this can be added into the final rule scheduled for completion by summer 2023, or a fast additional rule following the final rule, no later than the end of 2023.

While EPA staff have considered this question since at least 2014, evidence has only further built to show the need and effectiveness of monitoring to detect and address chemical releases. In reports issued from 2007-2015, the CSB has found that perimeter monitoring can identify and alert communities to harm from chemical disasters and has found that the lack of real-time information has caused harm to nearby communities. TBD at 22 & n.n. 46-50 & TBD at 23 (citing CSB BP America Refinery, Bayer CropScience, DuPont Corporation, Millard Refrigerated Services, and DuPont Belle incidents). In other reports, the CSB has noted the lack of fenceline monitoring as a problem to evaluate the full impact of chemical disasters.<sup>264</sup>

The other requirements EPA acknowledges in the TBD are insufficient alone to detect and minimize harm from chemical disasters.

First, the PHA requirements for use of detection methods to provide early warning of releases only applies to Program 3 facilities. 40 C.F.R. § 68.67(c)(3). Further, it is not clear enough that strong perimeter monitoring must be used if it is available for an RMP chemical and would assure early detection. EPA should expand this regulation to make clear that detection must include real-time fenceline monitoring if a real-time monitoring method is available for an

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<sup>261</sup> 42 U.S.C. § 7412(r)(7)(A) (authorizing EPA “to promulgate release prevention, detection and correction requirements which may include monitoring”); *id.* § 7412(r)(7)(B) (authorizing and requiring EPA to promulgate rules for the “prevention and detection of accidental releases” and for response “to the greatest extent practicable”).

<sup>262</sup> Real-time data collection and reporting is also consistent with Section 222(b)(ii) of Executive Order 14008 (Jan. 27, 2021), which requires that “The Administrator of the Environmental Protection Agency shall, within existing appropriations and consistent with applicable law: [...] (ii) create a community notification program to monitor and provide real-time data to the public on current environmental pollution, including emissions, criteria pollutants, and toxins, in frontline and fenceline communities—places with the most significant exposure to such pollution.”

<sup>263</sup> [EPA-HQ-OLEM-2022-0174-0066](#).

<sup>264</sup> *See* Arkema Report at (2018).

RMP-listed chemical used, stored, or managed at the facility for which off-site impacts could occur.

Second, the fact that some new source performance standards (NSPS) and national emission standards for hazardous air pollutants (NESHAP) require certain monitoring, leak detection and repair requirements is also not justification not to assure effective detection of RMP-listed chemicals. For example, the only national air toxics rules that require fenceline monitoring apply only to petroleum refineries, require only monitoring and reporting of benzene, and these reports are averaged over a two-week collection period and not reported in real-time.<sup>265</sup> Although communities have long called for this and continue to urge the air office to expand those requirements to other source categories and to strengthen the rules at refineries, there is no other NESHAP at present, there is no NSPS that includes fenceline monitoring. Individual Title V permits can easily be changed by an air permitting agency, and it is uncommon for these permits to require fenceline monitoring for RMP chemicals in any manner that could adequately detect or prevent harm from a chemical disaster. Unless fenceline monitoring is required by the RMP rules, and unless 40 C.F.R. § 68.215 is modified to assure full compliance with the RMP under Title V (as discussed later in these comments), there is no evidence that Title V permits would protect people from any of the RMP-regulated substances.

The cost of fenceline monitoring is not a lawful or valid justification for not requiring this at least at the types of facilities with the greatest hazards, near communities facing severe harm from a release, and at facilities like petroleum refineries and chemical manufacturers with the worst incident records. Further, as discussed above, EPA cannot and should not use cost or industry burden as a basis for refusing to assure chemical disaster prevention, detection, response, or harm minimization “to the greatest extent practicable.” Doing so violates section 7412(r)(7)(A), and (B) of the Act. Further, the cost data EPA cites is from 2014. The cost of these systems have declined in recent years and refineries in some places, like California’s South Coast, have implemented them effectively.<sup>266</sup>

Outdated information on monitoring technology from 2014 also does not justify refusing to require fenceline monitoring. In recent years, state and local governments have required use

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<sup>265</sup> See Petroleum Refinery Sector Risk and Technology Review and New Source Performance Standards, 80 Fed. Reg. 74,965, 75,178 (Dec. 1, 2015); 40 C.F.R. Part 63 subpart CC: 40 C.F.R. § 63.158.

<sup>266</sup> See, e.g., South Coast Air Quality Mgmt. District, Rule 1180 - Refinery Community and Fenceline Air Monitoring, <http://www.aqmd.gov/home/rules-compliance/rules/support-documents/rule-1180-refinery-fenceline-monitoring-plans> (providing links to real-time fenceline monitoring plans for the following refineries: Chevron El Segundo Refinery, Tesoro Carson and Wilmington Refineries, Phillips 66 Carson Refinery, Phillips 66 Wilmington Refinery, Torrance Refining Company, Valero Wilmington Refinery); Rule 1180 Staff Report at 5 (“The fenceline air monitoring requirements were estimated to have an average annual cost of approximately \$3.6 million, while the community air monitoring fees were estimated to have an average annual cost of \$3.5 million, resulting in a total estimated annual compliance cost of \$7.1 million. The facility-specific annual compliance cost was estimated to range from \$489,000 to \$1.5 million depending on the refinery’s size and their specific fee schedule. PR 1180 is projected to result in a net positive job impact of 35 jobs per year on average in the four-county region over the 2018-2028 time period, due to an increase in jobs in industries related to monitoring activities being greater than the foregone jobs in industries primarily related to petroleum refining.”), <http://www.aqmd.gov/docs/default-source/Agendas/Governing-Board/2017/2017-dec1-031.pdf>.



of real-time fenceline monitoring as methods have improved.<sup>267</sup> The CSB has provided information more recently on real-time fenceline monitoring methods in operation, as EPA acknowledges. TBD at 24 & nn. 70-73. And, many commenters also cited the importance and evidence of the value of fenceline monitoring during the 2021 listening sessions. *Id.* at 24-25 & nn. 78-85.

EPA has correctly acknowledged the federal refinery rule and state (in Maine and Colorado) and local (South Coast Air Quality Management) rules that require fenceline monitoring, including for RMP chemicals like hydrofluoric acid, as well as EPA and other enforcement consent decrees that require real-time fenceline monitoring. TBD at 26-27.<sup>268</sup>

Commenters support EPA's recognition of "value in a fenceline air monitoring program" for the RMP that would "identify emissions that are crossing the facility's boundary and entering the adjacent community" by "look[ing] more holistically at the emissions escaping the facility." TBD at 27.

EPA's valuable research on the duration of RMP releases further illustrates the value of fast, real-time fenceline monitoring and reporting of incidents – both for those that continue longer and for those where fast action is most essential to save lives, prevent injuries, and ensure effective shelter-in-place or evacuation. TBD at 28. It is extremely rare that a community understands anything about an incident within the first 10 minutes – even though 70% of incidents EPA evaluated lasted this long or less. Real-time monitoring and reporting is essential to assure information reaches first-responders and communities before it is too late and the toxic exposure and other harm has already begun.

On the specific questions EPA raises in section 5 of the fenceline monitoring TBD section, Commenters state that:

a. Facilities to Regulate: Fenceline monitoring is most well demonstrated and widely used at petroleum refineries and chemical manufacturing plants and these are also well-known sectors with high incident records. At minimum, EPA should ensure that these facilities must use real-time fenceline monitoring.

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<sup>267</sup> See, e.g., S. Coast AQMD Rule 1180.

<sup>268</sup> See, e.g., EPA's enforcement office has a number of examples of real-time fenceline monitoring required in consent decrees. See, e.g., 2017 Exxon Mobil enforcement consent decree included an organic chemical manufacturing plant, required fenceline monitoring. <https://www.epa.gov/enforcement/exxon-mobilcorporationexxonmobil-oil-corporation-clean-air-act-settlement>. Norco is a chemical plant, where EPA required fenceline monitoring. <https://www.epa.gov/enforcement/shell-chemical-lp-norco-louisiana-clean-air-act-settlement>. Shell Deer Park, chemical plant in Houston, TX – required fenceline monitoring, <https://www.epa.gov/enforcement/shell-deer-park-settlement>. Flint Hills, chemical plant in Port Arthur – required flare fenceline monitoring improvements. <https://www.epa.gov/enforcement/flint-hills-resources-port-arthur-clean-air-act-settlement>; Dyno Nobel, Del. – chemical plant, civil enforcement, but notes that criminal plea implemented fenceline monitoring for ammonia. <https://www.epa.gov/enforcement/dyno-nobel-informationsheet>.

b. Manned or unmanned facilities: the facilities in most need of fence-line monitoring have sufficient staff, often highly skilled union members, who are well-equipped to implement real-time fence-line monitoring.

c. Type of monitoring:

EPA should require continuous monitoring using the best available fence-line monitoring method for RMP chemicals for which a method is available. EPA's authority to detect releases allows the agency to require monitoring at levels below the regulated use thresholds. The regulated substances thresholds trigger coverage - but the release of lower levels than the thresholds indicate a potentially larger release is occurring or about to occur.

d. Automatic Release Notifications

EPA should require monitoring and reporting – and assure reporting and any other necessary corrective action begin any time a release of an RMP-regulated chemical is detected. Reporting of such releases would ensure that a larger release or catastrophe can be avoided – there can be no “unnecessary response” to release of any level of a highly hazardous RMP regulated substance. EPA should ensure immediate public reporting so that the public, local government officials, first responders, and community leaders can track the information, respond immediately if a value is known to go above a level considered unsafe for workers or community members, and can investigate if additional prevention is needed if a number of smaller releases or leaks occur, suggesting a potential problem that could become far worse.

Automatic online reporting on a publicly accessible database should occur continuously at all detection levels. EPA should ensure an external alarm is triggered for any chemical that could cause death, injury, or other harm after minutes or hours of exposure, no matter the level detected – so that the facility, LEPCs, first-responders, the public all receive this notification immediately. For other chemicals, EPA should follow the EPA air office's health reference value prioritization for acute health threats, which follows IRIS, ATSDR or another federal value, or the California EPA OEHHA values if those are not available or not reliable, to alert LEPCs, first responders, and the public. To provide a health-protective buffer and as many of these values are outdated, EPA should ensure that if a detected chemical reading reaches or comes within 25% of reaching that health reference value, EPA should ensure that the facility provides information to FEMA IPAWS and any other applicable state or local community alert system that is in place so that system can ensure immediate notification to the public.

e. Quality Assurance of Real-Time Data Using Reliable Methods

Real-time, active monitoring technologies are available for hydrofluoric acid, ethylene oxide, 1,3-butadiene, vinyl chloride, hydrogen sulfide, hydrogen cyanide, formaldehyde, acetaldehyde, ammonia, as cited above. In addition, until a method becomes available for other chemicals, the use of real-time monitors for a surrogate volatile organic compound like benzene

could be required for a facility process that would likely release an RMP chemical if benzene or another similar VOC is released.<sup>269</sup>

EPA's Office of Research and Development has significant expertise on how to ensure reliable and accurate air monitoring, including certain real-time monitoring methods. ORD has been evaluating and reporting on the effectiveness of various techniques, including for the RMP-regulated substance ethylene oxide, in recent years.<sup>270</sup> EPA should consult with ORD as well as state and local governments like SCAQMD, Colorado DPHE and Maine that have implemented fenceline monitoring that covers RMP chemicals and employ similar, effective methods in this rule. EPA has received funds under the Inflation Reduction Act that can and should be used to assure fenceline monitoring methods are available for chemicals like ethylene oxide, and that methods are included in rules with enforceable corrective action requirements. OLEM should work with ORD to apply some of those funds to the RMP program, and ensure real-time monitoring for RMP chemicals as expeditiously as practicable, including through developing updated or new real-time monitoring methods (that include appropriate siting and other protocols, along with monitoring technologies), as needed.<sup>271</sup>

#### f. Monitoring Technologies and Standards

EPA recognizes that “[t]echnology is advancing quickly and new field-designed monitors are being developed” that can detect many chemicals. TBD at 31. That is correct. EPA should consult with the Office of Research Development, Office of Air and Radiation (OAR), and Office of Enforcement and Compliance Assurance (OECA) to apply the best available known real-time methods for RMP hazardous substances. EPA OLEM would not need to start from scratch on this, but should simply draw on expertise from ORD and from monitoring experts in EPA's air and enforcement teams.

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*See, e.g., Sierra Club v. EPA*, 353 F.3d 976, 984 (D.C. Cir. 2004) (quoting *Nat'l Lime Ass'n*, 233 F.3d at 639) (explaining where a surrogate may be used to target an air toxic).

<sup>270</sup> *See, e.g.,* T. Yelverton, EPA, ORD, Ethylene Oxide (EtO): Status Update on Available Measurement and Monitoring Technologies (Oct. 13, 2022) (attached); EPA presentation at 2022 National Ambient Air Monitoring Conference (Aug. 25, 2022); A. Gitipour, EPA ORD, Intercomparison of Ethylene Oxide Measurement Methods Under Controlled and Relevant Atmospheric Conditions, AWMA Measurements Conference (Mar. 9, 2022) (attached).

<sup>271</sup> *See, e.g.,* IRA Sec. 60105, Pub. Law No. 117-169 (2022), <https://www.congress.gov/bill/117th-congress/house-bill/5376/text> (providing for “a) Fenceline Air Monitoring And Screening Air Monitoring.—In addition to amounts otherwise available, there is appropriated to the Administrator of the Environmental Protection Agency for fiscal year 2022, out of any money in the Treasury not otherwise appropriated, \$117,500,000, to remain available until September 30, 2031, for grants and other activities authorized under subsections (a) through (c) of section 103 and section 105 of the Clean Air Act (42 U.S.C. 7403(a)–(c), 7405) to deploy, integrate, support, and maintain fenceline air monitoring, screening air monitoring, national air toxics trend stations, and other air toxics and community monitoring.). This bill aims to implement the Public Health Air Quality Act of 2022, S. 4510, as introduced in the Senate, which includes direction to EPA to use the funds to update or develop fenceline monitoring methods for pollutants such as ethylene oxide and deploy these methods in enforceable rules under section 112. *See* <https://www.congress.gov/bill/117th-congress/senate-bill/4510?s=1&r=25>.

For substances with no currently available technology, EPA could and should commit to review the monitoring requirements when it reviews and updates the substances list. That is supposed to happen at least every five years, and that would provide an appropriate opportunity to review and add any new monitoring requirements for particular substances to the RMP rule. EPA has authority to revise the RMP rule at any time, including in parallel with an RMP hazardous substances List Rule update.

## 6. Designing a Fenceline Air Monitoring Program

EPA should require real-time air fenceline monitoring at RMP facilities to provide for earlier notification and action to reduce harm to first responders and the public in the event of an incident, and ensure enforcement sufficient to deter removing air monitoring and control equipment from service. EPA appropriately recognizes fenceline monitoring technologies have developed since it first received comments calling for this protection in 2014 and it should act on this information to assure the strongest possible protection for fenceline communities and first-responders.

Commenters agree with EPA's starting point in the Technical Background Document for an initial fenceline monitoring program. Based on the hazards and the available monitoring protocols, starting with a program that would focus on a subset of high-toxicity substances with existing real-time monitoring technology, complex facilities or facilities with multiple RMP processes or sources, and Program 3 RMP facilities is well-supported by available evidence and within EPA's authority. This would also focus the requirements on the facilities best prepared to implement this type of monitoring, and would advance the goal of assuring disaster prevention, detection, and harm minimization "to the greatest extent practicable," 42 U.S.C. § 7412(r)(7)(B), by adding key monitoring that is not currently in place at some of the most hazardous facilities.

Therefore, EPA should act promptly to require fenceline monitoring for at least those RMP substances with available real-time monitoring technology (such as hydrofluoric acid, ethylene oxide, 1,3-butadiene, vinyl chloride, hydrogen sulfide, hydrogen cyanide, formaldehyde, acetaldehyde, ammonia), at minimum at Program 3 facilities with multiple sources or processes (such as refineries, chemical and petrochemical plants), where monitoring will be most likely to strengthen incident detection and first-responder and community information. EPA should ensure fenceline monitoring data are connected into a community alert system and are made immediately available online through direct reporting to EPA or direct online publication by the facility. EPA should consult with the Office of Research and Development, the Office of Air and Radiation, and the Office of Enforcement and Compliance Assurance to draw on their guidance immediately to apply existing fenceline monitoring technology and protocols, and also follow the lead of state and local governments that have put real-time fenceline monitoring in place. As EPA reviews and adds substances to the RMP list over time it should also review and add fenceline monitoring requirements for such substances as additional technologies, methods and need are shown.

The following list includes evidence EPA should evaluate and draw on as it implements fenceline monitoring under the RMP.

## **Fenceline Monitoring requirements EPA should consult:**

- Federal:
  - OLEM should review and consult with the EPA air office regarding [Petroleum Refinery Fenceline Monitoring Rule](#), 40 C.F.R. § 63.658 – issued under EPA’s 112(d) authority to assure compliance with national emission standards for hazardous air pollutants.
  - OLEM should review reports of monitoring data under the Refinery Rule. For example, the Environmental Integrity Project has analyzed and shown that this method is effective at finding uncontrolled volatile organic compounds.<sup>272</sup>
  - OLEM should consult with the EPA enforcement and compliance assurance office (OECA) on CAA 112(d) and 112(r) consent decrees under the Clean Air Act with some refineries and chemical plants include open-path fenceline monitoring.<sup>273</sup>
  - OLEM should consult EPA’s [Information Collection Requests](#) issued in 2021 for chemical sector under CAA 112 and 114 (covering 112(r) chemicals such as ethylene oxide, 1,3-butadiene, vinyl chloride and more).<sup>274</sup>
- State:
  - EPA should review the actions of [Colorado DPHE](#) – implementation of new state law requiring real-time fenceline monitoring for some 112(r) chemicals (hydrogen sulfide, hydrogen cyanide). This law aims to address chemical disasters as well as routine emissions. CDPHE’s modification of a refinery draft plan (linked [here](#)) adds other 112(r) substances to be monitored (including formaldehyde, acetaldehyde, ammonia, 1,3-butadiene, and toluene).<sup>275</sup>
- Local:

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<sup>272</sup> See the [EIP 2021 report](#) on the data showing problems at 13 refineries; [EIP 2020 report](#) on the data showing problems at 10 refineries: <https://environmentalintegrity.org/news/13-oil-refineries-in-u-s-released-cancer-causing-benzene-above-epa-action-levels-in-2020/> and <https://environmentalintegrity.org/reports/monitoring-for-benzene-at-refinery-fencelines/>.

<sup>273</sup> See, e.g., EPA’s enforcement office has a number of examples of real-time fenceline monitoring required in consent decrees. See, e.g., 2017 Exxon Mobil enforcement consent decree included an organic chemical manufacturing plant, required fenceline monitoring. <https://www.epa.gov/enforcement/exxon-mobilcorporationexxonmobil-oil-corporation-clean-air-act-settlement>. Norco is a chemical plant, where EPA required fenceline monitoring. <https://www.epa.gov/enforcement/shell-chemical-lp-norco-louisiana-clean-air-act-settlement>. Shell Deer Park, chemical plant in Houston, TX – required fenceline monitoring, <https://www.epa.gov/enforcement/shell-deer-park-settlement>. Flint Hills, chemical plant in Port Arthur – required flare fenceline monitoring improvements. <https://www.epa.gov/enforcement/flint-hills-resources-port-arthur-clean-air-act-settlement>; Dyno Nobel, Del. – chemical plant, civil enforcement, but notes that criminal plea implemented fenceline monitoring for ammonia. <https://www.epa.gov/enforcement/dyno-nobel-informationsheet>.

<sup>274</sup> EPA, Chemical Sector Clean Air Act Section 114 Information Collection Request, <https://www.epa.gov/stationary-sources-air-pollution/chemical-sector-clean-air-act-section-114-information-collection>.

<sup>275</sup> CDPHE APCD Modified Suncor Fenceline Monitoring Plan (Aug. 12, 2022), <https://cdphe.colorado.gov/press-release/state-health-department-requires-changes-to-suncors-fenceline-monitoring-plan>.

- EPA should review the actions of South Coast AQMD – [Rule 1180](#) for petroleum refineries covers some 112(r) chemicals (hydrogen sulfide, hydrogen cyanide, formaldehyde, acetaldehyde, ammonia). This rule aims to address chemical disasters as well as routine emissions.
  - [Guidelines](#) (listing chemicals required to be measured)<sup>276</sup>
  - [Implemented plans](#)<sup>277</sup>
- EPA should review the actions of the Bay Area AQMD – [Rule 15-2](#) for petroleum refineries: covers some 112(r) chemicals. Aims to address chemical disasters as well as routine emissions.
  - [Public website for one refinery](#)<sup>278</sup>

In addition to consulting with ORD, OLEM should also review and consult the [EPA Handbook on Open-Path Methods](#).<sup>279</sup>

## 16. OTHER ADDITIONAL CONSIDERATION: RMP REGULATED SUBSTANCES LIST (SECTION V)

EPA must expand the coverage of the RMP program to protect more people by expanding the RMP hazardous substances list and facility coverage. Present and past incidents of hazardous chemical release indicate that EPA’s current chemical and facilities coverage is incomplete and insufficient. Therefore, EPA must expand the list of hazardous chemicals and facilities regulated under the RMP. Additionally, the threshold quantities (TQ) of many of the regulated hazards are unreasonably high. The high TQ exempts many facilities from RMP requirements, leading to accidents that could have been mitigated.

EPA’s current RMP regulates an insufficient number of chemicals and facilities. The current rule regulates approximately 11,760 chemical facilities regulated under <sup>280</sup> RMP regulates facilities that use, store, or manage regulated substances at the promulgated threshold quantities, <sup>281</sup> EPA first promulgated the chemicals and thresholds list in 1994, and since then, and has added no chemicals to the list<sup>282</sup>

<sup>276</sup> SCAQMD Rule 1180 Guidelines, <http://www.aqmd.gov/docs/default-source/rule-book/support-documents/1180/rule-1180-guidelines.pdf>.

<sup>277</sup> SCAQMD Fenceline Monitoring Plans, <http://www.aqmd.gov/home/rules-compliance/rules/support-documents/rule-1180-refinery-fenceline-monitoring-plans#:~:text=Rule%201180%20requires%20petroleum%20refineries,pollutants%20and%20toxic%20air%20contaminants>.

<sup>278</sup> <https://richmondairmonitoring.org/>.

<sup>279</sup> EPA Handbook: Optical Remote Sensing for Measurement and Monitoring of Emissions Flux (Dec. 2011), <https://www3.epa.gov/ttnemc01/guidlnd/gd-052.pdf>.

<sup>280</sup> EPA, May 2021 RMP (Non-OCA) Database (facilities list, with duplicates of EPA Facility ID removed, and facilities with a deregistration date removed).

<sup>281</sup> 40 C.F.R. § 68.130.

<sup>282</sup> See EPA, List of Regulated Substances and Thresholds for Accidental Release Prevention, Final Rule, 59 Fed. Reg. 4478 (Jan. 31, 1994) (later promulgations only removed chemicals from the list) (summarizing examples of hazardous chemical incidents at non-RMP facilities).

Two important ways to ensure broader coverage of RMP facilities, as well as to expand coverage to more facilities and thus to protect more people, are: adding more chemicals to the RMP list, and lowering the threshold quantities for coverage, as discussed next.

A. EPA must expand the list of chemicals covered to include more highly hazardous substances, including ammonium nitrate, and facilities that use these.

Commenters urge EPA to act expeditiously to review and update the list of RMP-regulated substances and chemical thresholds as section 7412(r)(3) of the Clean Air Act requires. The agency correctly “acknowledges the need for reviewing” this list. 87 Fed. Reg. at 53,607. EPA must perform this review to satisfy its non-discretionary legal duty, to fulfill the Act’s objectives to prevent chemical disasters and assure detection and response “to the greatest extent practicable,” and to meet the agency’s core responsibility to protect public health and safety. 42 U.S.C. §§ 7412(r), 7412(r)(7)(A), (B).

EPA must complete this review without any further delay because it is overdue as a matter of law. The Act authorizes EPA to review this list “from time to time,” and requires this review at least every five years. 42 U.S.C. § 7412(r)(3). EPA first promulgated the list of substances in 1994,<sup>283</sup> revised the list in 1997 to change the listed concentration of hydrochloric acid,<sup>284</sup> and revised the list in 1998 to delist Division 1.1 explosives.<sup>285</sup> EPA has not completed a review of the list since 1998.<sup>286</sup> Therefore, EPA’s review action for this list has been due since at least January 6, 2003, and was due to occur again by the same date in 2008, 2013, and 2018. The next review is due no later than January 6, 2023. EPA has repeatedly violated and is continuing to violate the Clean Air Act by failing to complete its non-discretionary duty to review and update the RMP-regulated hazardous substances list. Therefore, EPA should prioritize this review and issue a proposal and final list review rule as expeditiously as possible.

It is also important and necessary for EPA to complete the list review rulemaking to satisfy the Act’s requirement to assure chemical disaster prevention, detection, response, and harm minimization, and to do so “to the greatest extent practicable.” 42 U.S.C. §§ 7412(r),

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<sup>283</sup> List of Regulated Substances and Thresholds for Accidental Release Prevention; Requirements for Petitions Under Section 112(r) of the Clean Air Act as Amended, 59 Fed. Reg. 4478 (Jan. 31, 1994) (“List Rule”) (listing 77 toxic chemicals – including 14 that are also flammable and 63 flammable substances).

<sup>284</sup> List of Regulated Substances and Thresholds for Accidental Release Prevention, 62 Fed. Reg. 45130 (1997).

<sup>285</sup> List of Regulated Substances and Thresholds for Accidental Release Prevention; Amendments, 63 Fed. Reg. 640 (Jan. 6, 1998).

<sup>286</sup> In 2000, EPA modified the list to conform with the recently enacted Chemical Safety Information, Site Security and Fuels Regulatory Relief Act (Pub. L. 106-40). Amendments to the List of Regulated Substances and Thresholds for Accidental Release Prevention; Flammable Substances Used as Fuel or Held for Sale as Fuel at Retail Facilities, but did not review the regulated substances list. 65 Fed. Reg. 13243 (Mar. 13, 2000). EPA included the question of whether to list additional substances or change thresholds in the Request for Information the agency issued in 2014 but did not complete a review satisfying section 7412(r)(3) at that time. EPA, Request for Information, Accidental Release Prevention Requirements: Risk Management Programs Under the Clean Air Act, Section 112(r)(7), 79 Fed. Reg. 44,604 (July 31, 2014).



7412(r)(7)(A), (B). Further, CSB recommendations support EPA adding missing chemicals to the list – as further discussed below. The CSB’s recommendations on this issue carry particular weight and EPA must respond to incorporate them or fulfill its statutory obligation to justify not doing so. 42 U.S.C. § 7412(r)(6)(I).<sup>287</sup>

Finally, it would be unlawful, arbitrary and capricious for EPA to defer or delay this action because of the grave danger posed by unregulated substances. In particular, ammonium nitrate and other unregulated reactive chemicals must be added to the list promptly.<sup>288</sup> These chemicals fully satisfy the listing requirements of the Clean Air Act. Section 112(r)(4) establishes the factors EPA must consider when listing a substance. The factors considered include: “(i) the severity of any acute adverse health effects associated with accidental releases of the substance; (ii) the likelihood of accidental releases of the substance; and (iii) the potential magnitude of human exposure to accidental releases of the substance.” 42 U.S.C. § 7412 (r)(4)(A)(i)-(iii). The regulations further articulate criteria for the discretionary listing of a substance. Section 68.120 states that EPA may add a substance to the list “if, in the case of an accidental release, it is known to cause or may be reasonably anticipated to cause death, injury, or serious adverse effects to human health or the environment.” 40 C.F.R. § 68.120(b).

EPA’s Technical Background Document cites substantial evidence showing the severity of these hazards and the grave harm that incidents involving these chemicals have posed, demonstrating that these chemicals fully meet the listing criteria. TBD at 16-22. There are also major hazards at facilities that EPA does not regulate at all under the existing RMP or only regulates in part. The CSB has called for EPA to list ammonium nitrate for years, following the West, Texas tragedy in 2013.<sup>289</sup> The massive chemical explosion in Beirut on August 4, 2020 that killed 220 people and injured more than 6,500 in a very short period of time, is a recent example of the kind of incident showing that ammonium nitrate is a serious unregulated hazard.<sup>290</sup> In August 2020, the CSB Chair highlighted the ongoing threat posed due to EPA’s failure to regulate ammonium nitrate – and the fact that it is used near homes, schools, and hospitals in the United States poses a serious threat of death and injury.<sup>291</sup>

EPA asks whether an approach other than regulating this chemical under the RMP “is better for regulating AN [ammonium nitrate],” TBD at 18. There is no evidence that any other existing rules are “better” for health and safety protection, or fill the huge safety gap from leaving these substances out of the RMP program. EPA cites various provisions, but none of them provided sufficient protection at the West, Texas fertilizer plant tragedy in 2013, or the Weaver Winston-Salem fire in 2022 to address chemicals not regulated by the RMP at those

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<sup>287</sup> See CSB Oct. 2022 Comments, <https://www.regulations.gov/comment/EPA-HQ-OLEM-2022-0174-0166>.

<sup>288</sup> In the 2022 proposed RMP amendments, EPA noted that ammonium nitrate will be a “priority chemical for EPA’s upcoming review.” 87 Fed. Reg. 53556, 53607 (2022).

<sup>289</sup> CSB West, Final Report on TX West Fertilizer Fire and Explosion at 243 (Apr. 17, 2013).

<sup>290</sup> See, e.g., S. Al-Hajj *et al.*, Beirut Ammonium Nitrate Blast: Analysis, Review, and Recommendations, *Front. Public Health* (June 4, 2021), <https://www.frontiersin.org/articles/10.3389/fpubh.2021.657996/full>.

<sup>291</sup> Statement from CSB Chairman Katherine Lemos on Massive Explosion and Fire in Beirut (Aug. 2020), <https://www.csb.gov/statement-from-csb-chairman-katherine-lemos-on-massive-explosion-and-fire-in-beirut/> (attached).



facilities. On the other hand, New Jersey’s Toxic Catastrophe Prevention Act (TCPA) regulates reactive hazards providing a clear and demonstrated effective path for EPA to follow to provide national protection. *Id.* at 20 (citing NJDEP, NJAC 7.31 – Toxic Catastrophe Prevention Act Rules, last modified Jan. 27, 2022, [https://www.nj.gov/dep/rules/njac7\\_31.html](https://www.nj.gov/dep/rules/njac7_31.html)). Further, EPA’s suggestion that not following the RMP “may be simpler for a smaller business without a large safety staff” is a shocking, irrational justification that the agency could not rely on to avoid regulating this highly hazardous chemical. A smaller business without a large safety staff is exactly the kind of business that is likely to be unable or unwilling to address safety on its own without clear prescriptive requirements by EPA. Thus, not only large chemical manufacturers but also any small business seeking to use, store, or manage the highly hazardous chemical ammonium nitrate at minimum should have to follow common-sense RMP requirements in order to engage in this highly hazardous type of business operation.

There are major gaps in the RMP because this program does not regulate all of the highly hazardous chemicals that, if released, could cause death, injury, toxic exposure, and other harm.

Recent incidents illustrate the need for an expansion in the list of chemicals covered.<sup>292</sup> Another example incident occurred just days ago at the Dow Bayport chemical plant in La Porte, TX, causing a shelter-in-place and evacuation order in the Houston area involving the non-RMP covered chemical hydroxyethyl acrylate.<sup>293</sup> Then, on July 27, 2021, a fatal chemical incident involved additional chemicals that appear not to be covered.<sup>294</sup>

A major area of reform needed is for EPA to include reactive chemicals. Lack of regulation in this regard has led to accidents resulting from these chemicals. For example, in 2017, a reactive accident caused by organic peroxides led to a fire at Arkema in Crosby, Texas.<sup>295</sup> Another incident occurred because of stored ammonium nitrate, another reactive chemical not covered under the RMP.<sup>296</sup> Nitrous oxide is yet another reactive chemical that is

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<sup>292</sup> *Id.*; see also CSB, *T2 Laboratories Inc. Reactive Chemical Explosion* (Sept. 15, 2009), <https://www.csb.gov/t2-laboratories-inc-reactive-chemical-explosion/> (killing four and injuring thirteen).

<sup>293</sup> <https://www.click2houston.com/news/local/2021/07/21/shelter-in-place-issued-for-la-porte-following-process-upset-at-dow-chemical-facility-office-of-emergency-management-says/>.

<sup>294</sup> P. Benedetto & K. Watkins, Houston Pub. Media (July 27, 2021), <https://www.houstonpublicmedia.org/articles/news/energy-environment/2021/07/27/404355/at-least-2-dead-after-leak-at-lyondellbasell-chemical-plant-in-la-porte/> (“Harris County Fire Marshal Laurie Christensen identified the chemicals as methyl iodide, hydrogen iodide, and methyl acetate-- a chemical acid used in food-grade vinegar that can cause severe burn, and is harmful if swallowed, toxic if inhaled, and harmful to the skin, she said.”).

<sup>295</sup> CSB, ORGANIC PEROXIDE DECOMPOSITION, RELEASE, AND FIRE AT ARKEMA CROSBY FOLLOWING HURRICANE HARVEY FLOODING 13 (2018); see also CSB, FACTUAL UPDATE: FIRES AND EXPLOSIONS AT TPC GROUP PORT NECHES OPERATIONS FACILITY 11 (2018) (injuries to three resulting from explosion of butadiene-based polymer).

<sup>296</sup> CSB, INVESTIGATION REPORT: TOXIC CHEMICAL RELEASE AT THE DUPONT LA PORTE CHEMICAL FACILITY 64 (2018); see also CSB, INVESTIGATION REPORT: WEST FERTILIZER COMPANY FIRE AND EXPLOSION 57–58 (2016) (killing fifteen and injuring more than 260).

not covered under the RMP.<sup>297</sup> The incident at Airgas killed one worker.<sup>298</sup> Incidents elsewhere, like the catastrophe in Beirut in 2020, also illustrate the need for stronger RMP regulation of ammonium nitrate and other reactive chemicals.<sup>299</sup>

Related to reactive chemicals are flammable chemicals that are not covered because they fall outside of the RMP-covered flammability rating.<sup>300</sup> CSB has already recommended multiple times that EPA expand the current RMP to include reactive hazards.<sup>301</sup> In the Reactive hazards report, the CSB recommended that EPA:

Revise the Accidental Release Prevention Requirements, 40 CFR 68 (RMP), to explicitly cover catastrophic reactive hazards that have the potential to seriously impact the public, including those resulting from self-reactive chemicals and combinations of chemicals and process-specific conditions.<sup>302</sup>

The status on this recommendation is “Open-Unacceptable Response/No Response Received.”<sup>303</sup>

In fall 2021, CSB released a new investigation report on the AB Specialty Silicones incident that again reiterated the need for EPA’s RMP substances list and rules “to explicitly

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<sup>297</sup> CSB, NITROUS OXIDE EXPLOSION: INVESTIGATION REPORT 9–10, 92 (2016). This explosion was certainly not the only one that occurred due to nitrous oxide. *See id.* at 23–35 (listing nitrous oxide explosion incidents that happened from 1973).

<sup>298</sup> *Id.* at 9.

<sup>299</sup> *See supra* note 290; *see also* Giorgia Guglielmi, *Why Beirut’s Ammonium Nitrate Blast Was So Devastating*, NATURE (Aug. 10, 2020), <https://www.nature.com/articles/d41586-020-02361-x>; *Statement from CSB Chairman Katherine Lemos on Massive Explosion and Fire in Beirut*, CHEM. SAFETY. BD., <https://www.csb.gov/statement-from-csb-chairman-katherine-lemos-on-massive-explosion-and-fire-in-beirut/>.

<sup>300</sup> *See, e.g.*, CSB, INVESTIGATION REPORT: CARIBBEAN PETROLEUM TANK TERMINAL EXPLOSION AND MULTIPLE TANK FIRES: FINAL REPORT 58 (2009). The facility was not covered under the EPA RMP rule because it is a bulk petroleum storage tank terminal storing NFPA 704, Class 3 flammable liquids.

<sup>301</sup> 2016 CSB Comment, [https://www.csb.gov/assets/1/6/csb\\_comments\\_epa-hq-oem-2015-0725\\_51020161.pdf](https://www.csb.gov/assets/1/6/csb_comments_epa-hq-oem-2015-0725_51020161.pdf); *see also* Summary of CSB Explosive and Toxic Incident Recommendations, 1988–2013 (Recommendation number 2001-H-XX-R3, [https://www.csb.gov/assets/1/20/summary\\_excel\\_for\\_boxer\\_office.pdf?14970](https://www.csb.gov/assets/1/20/summary_excel_for_boxer_office.pdf?14970)); Comment submitted by Vanessa Allen Sutherland, Chairperson and Member et al., CSB 7 (May 10, 2016), EPA-HQ-OEM-2015-0725-0428; CSB, Comment submitted by Rafael Moure-Eraso, PhD, CIH, Chairperson, on EPA’s Request for Information 4–9 (Oct. 29, 2014), EPA-HQ-OEM-2014-0328-0689; CSB, Testimony of Rafael Moure-Eraso, PhD Chairperson of U.S. Chemical Safety Board, Before the U.S. Senate Committee on Environment and Public Works 9 (June 27, 2013), EPA-HQ-OEM-2015-0725-0272; CSB, HAZARD INVESTIGATION: IMPROVING REACTIVE HAZARD MANAGEMENT 84 (2007), [HTTPS://WWW.CSB.GOV/IMPROVING-REACTIVE-HAZARD-MANAGEMENT/](https://www.csb.gov/IMPROVING-REACTIVE-HAZARD-MANAGEMENT/); CSB, ORGANIC PEROXIDE DECOMPOSITION, RELEASE, AND FIRE AT ARKEMA CROSBY FOLLOWING HURRICANE HARVEY FLOODING 102 (2018); CSB, INVESTIGATION REPORT: T2 LABORATORIES, INC. RUNAWAY REACTION 36 (2018); CSB, INVESTIGATION REPORT: WEST FERTILIZER COMPANY FIRE AND EXPLOSION 183 (2016).

<sup>302</sup> CSB, HAZARD INVESTIGATION: IMPROVING REACTIVE HAZARD MANAGEMENT 84 (2007), [HTTPS://WWW.CSB.GOV/IMPROVING-REACTIVE-HAZARD-MANAGEMENT/](https://www.csb.gov/IMPROVING-REACTIVE-HAZARD-MANAGEMENT/).

<sup>303</sup> CSB Status Change Summary, 2001-1-H-R3 (as of Mar. 11, 2014) (attached).

cover catastrophic reactive hazards that have the potential to seriously impact the public, including those resulting from self-reactive chemicals and combinations of chemicals and process-specific conditions.”<sup>304</sup>

Most significantly, CSB completed a study on accidents caused by reactive chemicals, and published it in 2002.<sup>305</sup> This study found that between 1980 and 2001, 167 incidents involved uncontrolled chemical reactivity.<sup>306</sup> Even after the publication of the report, incidents involving such reactive chemicals<sup>307</sup> have continued to occur, as shown above.

These incidents and studies demonstrate that unregulated reactive and flammable chemicals clearly meet the listing criteria of Section 112(r)(4). The accidental release of reactive and flammable chemicals not currently covered by the RMP program cause severe health effects. 42 U.S.C. § 7412 (r)(4)(A)(i). Moreover, as the above accidents illustrate, there is a high likelihood of accidental release of unregulated flammable or reactive substances such as ammonium nitrate and nitrous oxide. 42 U.S.C. § 7412 (r)(4)(A)(ii).

On June 16, Amanda Johnson, Recommendations Specialist with the CSB reiterated CSB’s repeated recommendation to the EPA to expand the RMP to “catastrophic [reactive] hazards that seriously impact the public.”<sup>308</sup> This is a recurring problem in incidents, harming workers and the public for years. EPA must stop the trend by expanding RMP coverage.

Other state rules and regulations offer additional guidance on chemicals EPA should add to the RMP program. The most extensive of such lists is the CalARP rule<sup>309</sup> as well as its local ordinances.<sup>310</sup> California rules and ordinances adopt the Emergency Planning and Community Right-To-Know Act (EPCRA) list from 40 C.F.R. § 355, which establishes emergency response planning requirements for facilities that store or use extremely hazardous substances regulated under this part.<sup>311</sup> California rules also regulate MCMT and sulfuric acid, two of the chemicals that are not covered under the EPA RMP rule but have caused incidents. EPA should add all of these to the RMP.

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<sup>304</sup> CSB, Chemical Reaction, Hydrogen Release, Explosion, and Fire at AB Specialty Silicones, Waukegan, IL on May 3, 2019, No. 2019-03-I-IL (published Sept. 24, 2021), <https://www.csb.gov/ab-specialty-silicones-llc/>; <https://www.csb.gov/file.aspx?DocumentId=6185>.

<sup>305</sup> CSB, HAZARD INVESTIGATION: IMPROVING REACTIVE HAZARD MANAGEMENT (2002).

<sup>306</sup> *Id.* at 5.

<sup>307</sup> U.S. CSB, Comment submitted by Rafael Moure-Eraso, PhD, CIH, Chairperson, on EPA’s Request for Information 5–6 (Oct. 29, 2014), EPA-HQ-OEM-2014-0328-0689.

<sup>308</sup> CSB, Testimony of Amanda Johnson, Recommendations Specialist of U.S. Chemical Safety Board, Before the EPA Listening Session on the RMP Rule 15 (June 16, 2021), EPA-HQ-OLEM-2021-0312-0011.

<sup>309</sup> CAL. CODE REGS. Tit. 19, Appendix A & B.

<sup>310</sup> Contra Costa County, Cal., Ordinances ch. 450-8, § 14(i); Richmond County, Cal., Ordinances ch. 6.43, § 6.43.050(i)(1). Both ordinances were adopted to “expand[] the application of certain provisions of the Federal and State accidental release prevention programs to processes not covered by the Federal or State accidental release prevention programs.” Contra Costa County, Cal. ch. 450-8, § 4(7); Richmond County, Cal., Ordinances ch. 6.43, § 6.43.030.

<sup>311</sup> 40 C.F.R. 533 Appendix A.

Another notable state regulation is the New Jersey Toxic Catastrophe Prevention Program (TCPA).<sup>312</sup> Most significantly, the New Jersey Code also includes reactive chemicals in their regulated hazardous substance list.<sup>313</sup> When the New Jersey TCPA was first passed, it included only regulated eleven compounds, thought to have “the most potential for causing a Bhopal-like disaster.”<sup>314</sup> However, with time, NJ added reactive hazard substances and liquified petroleum gas in 2003 based on accidents that were caused by reactive hazard substances.<sup>315</sup> In 2009, the Department added organometallics to the list because it deemed that the CSB provided “sufficient information to justify” the inclusion of the class in order to “reduce the risk of a catastrophic release.”<sup>316</sup>

Another potential source in reforming the list of regulated hazardous chemicals is other agencies that regulate hazardous chemicals to protect the health of workers, such as OSHA’s PSM program<sup>317</sup> or OSHA’s list of air contaminants.<sup>318</sup> Unifying the list of hazardous chemicals under OSHA PSM and EPA RMP may be beneficial in providing some clarity and consistency in regulations as well as improving protection for communities outside of the fenceline who are not directly protected by the OSHA rules.

Commenters have attached a “Chemical List” showing the approximately 395 chemicals regulated by California, New Jersey, and the OSHA PSM that are not listed RMP chemicals – and showing the lower thresholds at which some chemicals are regulated in these jurisdictions.<sup>319</sup> This spreadsheet shows that there are 20 chemicals regulated by at least two of these jurisdictions that EPA’s RMP does not regulate, and 4 chemicals regulated by all three of these jurisdictions that EPA’s RMP does not regulate: methyl bromide, methyl vinyl ketone, propargyl bromide, and tellurium hexafluoride.<sup>320</sup> EPA should list these as RMP chemicals, relying on the evidence and determinations made by these sister regulatory agencies.

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<sup>312</sup> N.J. ADMIN. CODE § 7:31-6.3, tbl.I.

<sup>313</sup> *Id.*

<sup>314</sup> John J. Pisano, *Toxic Catastrophe - Chemical Spills, Releases*, 9 SETON HALL LEGIS. J. 659, 659 (1986).

<sup>315</sup> Adoption of Toxic Catastrophe Prevention Program 37 (July 7, 2003), <https://www.nj.gov/dep/enforcement/tcpa/downloads/tcpareaf.pdf>.

<sup>316</sup> Adoption of Toxic Catastrophe Prevention Program (Mar. 16, 2009), [https://www.nj.gov/dep/rules/adoptions/adopt\\_090316a.pdf](https://www.nj.gov/dep/rules/adoptions/adopt_090316a.pdf).

<sup>317</sup> 29 C.F.R. § 1910.119.

<sup>318</sup> 29 C.F.R. § 1910.1000.

<sup>319</sup> Chemical List Comparing RMP Chemicals to Other Jurisdictions’ Chemicals and Threshold Quantities (created by Earthjustice) (attached in Appendix).

<sup>320</sup> *See id.* (chemicals highlighted in orange are regulated by at least two of the other jurisdictions, and chemicals highlighted in green are highlighted by at least three of the other jurisdictions, but not listed under EPA’s current Risk Management Program rules). The following chemicals are regulated by at least two of these other jurisdictions, but not the RMP: allyl chloride, bromine chloride, bromine pentafluoride, butyl hydroperoxide, carbonyl fluoride, chlorine pentafluoride, chlorine trifluoride, 1-chloro-2,4-dinitrobenzene, chloropicrin, cumene hydroperoxide, cyanogen chloride, cyanuric fluoride, diazomethane, dibenzoyl peroxide, dichloroacetylene, diisopropyl peroxydicarbonate, ethyl nitrite, hexafluoroacetone, hydrogen bromide, ketene, methacrylaldehyde, methacryloyl chloride, methacryloyloxyethyl isocyanate, Methyl fluoroacetate, Methyl fluorosulfate, Methyl iodide, Nitrogen Dioxide, ozone, Pentaborane,

Finally, EPA should evaluate recent incidents like Winston Weaver in North Carolina,<sup>321</sup> BioLab in Westlake, Louisiana, and Chemtool in Rockton, IL, and other similar non-RMP facility chemical hazard incidents, to see why those facilities are not covered by the RMP.<sup>322</sup> There are primarily news reports available on these incidents now – but the CSB is investigating and EPA should seek information and the final investigation reports on these incidents from the CSB.<sup>323</sup> If it was because of chemicals not regulated, that shows the need to add more chemicals. If it was because they used chemicals in volumes under EPA’s threshold quantities for regulations, that shows the need to reduce those thresholds. These are just some examples – there are also many other recent incidents that occurred at facilities that do not appear to be covered by the RMP – including over 90 since 2020, and about 40 so far in 2021, at least three of which the Chemical Safety Board is investigating.<sup>324</sup> EPA should review the information available on these incidents and should find that they show the need to add more chemicals to the RMP list and to lower the threshold quantity.

The National Response Center collects initial incident reports that EPA should also consult for data on RMP and non-RMP covered incidents.<sup>325</sup> As the Memorandum of Understanding between the CSB and EPA makes clear, EPA generally receives those reports.<sup>326</sup> Some of these incidents show incidents at RMP facilities that are relevant to the thresholds, the need to cover facilities in full, and some likely show hazardous chemical threats at facilities that are not currently regulated by the RMP, and thus are worth evaluating as well for ways in which EPA should expand coverage of the program.

Failing to do so would violate section 7412(r)(3)-(4) and would be arbitrary and capricious, as discussed above.

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Perchloryl fluoride, Phosphorus trifluoride, Phosphoryl chloride, sarin, Selenium hexafluoride, Stibine, Sulfur pentafluoride, Tetrafluorohydrazine, Thionyl chloride, Trichloro(Chloromethyl)Silane, Trichloro(Dichlorophenyl)Silane, Trimethoxysilane. *Id.*

<sup>321</sup> EPA OSC, Weaver Fertilizer Plant, Fire, Jan. 31, 2022, [https://response.epa.gov/site/site\\_profile.aspx?site\\_id=15489](https://response.epa.gov/site/site_profile.aspx?site_id=15489).

<sup>322</sup> Rachel Adams-Heard & Kevin Crowley, *Chemical Plant That Caught Fire After Hurricane Lays Off Workers*, BLOOMBERG (Oct. 1, 2020), <https://www.bloomberg.com/news/articles/2020-10-01/chemical-plant-that-exploded-after-hurricane-lays-off-workers>; Brett Chase, *After Rockton Chemical Explosion, Protecting Rock River from Oil Handed to Plant Owner*, CHI. SUN TIMES (June 25, 2021, 12:45 PM), <https://chicago.suntimes.com/2021/6/25/22549407/chemtool-chemical-plant-explosion-lubrizol-aftermath-rock-river-pollution-oil-rockton-illinois-epa>.

<sup>323</sup> CSB, *Bio Lab Chemical Fire and Release*, <https://www.csb.gov/bio-lab-chemical-fire-and-release/>.

<sup>324</sup> See Table 1, *supra* (listing ongoing CSB investigations); see also List of Recent Chemical Hazard Incidents as of Spring 2021, created by the Coalition to Prevent Chemical Disasters (2021) (attached); Additional Information on Recent Chemical Hazard Incidents as of Spring 2021 (created by Earthjustice, July 2021); see 2022 Updates (attached).

<sup>325</sup> U.S. Coast Guard Nat’l Response Ctr., Reports from 2021, 2020, 2019, 2018, 2017, 2016, <https://nrc.uscg.mil/> (attached).

<sup>326</sup> Memorandum of Understanding Between EPA and CSB on Chemical Incidents (Mar. 19, 1999), <https://www.epa.gov/sites/production/files/2013-10/documents/csbeqa.pdf>.



B. EPA must lower the threshold quantity (TQ) for coverage of the regulated hazardous chemicals.

The above-mentioned stricter rules not only regulate more chemicals than the national EPA list under 40 C.F.R. 63 but also regulate highly hazardous chemicals at much lower threshold quantities. Section 112(r)(5) delineates the criteria EPA must “take into account” when establishing the threshold quantity for each listed substance. 42 U.S.C. § 7412(r)(5). When determining the threshold quantity, EPA must consider “the toxicity, reactivity, volatility, dispersibility, combustibility, or flammability of the substance.” *Id.* EPA must also consider “the amount of the substance which, as a result of an accidental release, is known to cause or may reasonably be anticipated to cause death, injury or serious adverse effects to human health for which the substance was listed.” *Id.*

EPA should review the list of regulated substances’ existing thresholds, along with other jurisdictions’ regulated threshold quantities and reduce the federal RMP TQs accordingly.<sup>327</sup> For example, the Packaging Corporation of America Explosion illustrates the danger present because of the high threshold EPA has listed for certain quantities. Even though this facility uses hydrogen sulfide and methyl mercaptan, both of which are covered by the EPA RMP rules, it used these chemicals at a lower concentration than the 10,000 lbs. threshold.<sup>328</sup> The processes within the facility that used these chemicals therefore were not regulated under the RMP. The explosion killed three and injured seven.<sup>329</sup> Another chemical that is covered under the RMP but still causing numerous accidents and explosions is ammonia.<sup>330</sup> While EPA’s TQ for anhydrous

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<sup>327</sup> See Chemical List Comparing RMP Chemicals to Other Jurisdictions’ Chemicals and Threshold Quantities (created by Earthjustice for 2021 and 2022) (attached in Appendix).

<sup>328</sup> CSB, NON-CONDENSABLE GAS SYSTEM EXPLOSION AT PCA DERIDDER PAPER MILL 72 (2017).

<sup>329</sup> *Id.* at 21.

<sup>330</sup> See, e.g., Malena Ward, *At Least 20 Treated After Ammonia Leak at Lexington Tyson Plant*, KEARNEY HUB (Sept. 4, 2018), [https://kearneyhub.com/news/local/at-least-treated-after-ammonia-leak-at-lexington-tyson-plant/article\\_1fce217a-b0a4-11e8-a4aa-7f62b8ac43b2.html](https://kearneyhub.com/news/local/at-least-treated-after-ammonia-leak-at-lexington-tyson-plant/article_1fce217a-b0a4-11e8-a4aa-7f62b8ac43b2.html) (evacuating a beef packing plant); Neil Johnson, *WI Ammonia Leak Hospitalizes 15 People*, FIREHOUSE (July 30, 2018), <https://www.firehouse.com/rescue/hazardous-materials/news/21015508/darien-wi-birds-eye-food-packaging-plant-ammonia-leak-firefighters> (injuring fifteen workers); Luis Hernandez, *Ammonia Spill at Tulare Cheese Plant Sends Two to Visalia Hospital*, VISALIA TIMES DELTA (June 23, 2018), <https://www.visaliatimesdelta.com/story/news/2018/06/23/ammonia-spill-tulare-saputo-plant-sends-two-visalia-hospital/728600002/> (injuring two workers); Sarah Brookband, Cheryl Vari & Cameron Knight, *Winton Hills, St. Bernard Were Put Under Shelter-In-Place Order After Ammonia Leak Tuesday*, CINCINNATI.COM (June 12, 2018), <https://www.cincinnati.com/story/news/2018/06/12/ammonia-leak-prompts-shelter-place-call/693604002/> (placing shelter-in-place order); *Tyson Foods Plant Evacuated After Fire, HazMat Incident*, POWDER & BULK SOLIDS (Apr. 19, 2018), <https://www.powderbulksolids.com/wire-cloth/tyson-foods-plant-evacuated-after-fire-hazmat-incident>; *Ammonia Leak Disrupts Production at Butterball Plant*, WATTPOULTRY.COM (Nov. 6, 2017), <https://www.wattagnet.com/articles/32529-ammonia-leak-disrupts-production-at-butterball-plant>; *Fire Forces Evacuation of Unilever Ice Cream Plant*, POWDER & BULK SOLIDS (Oct. 25, 2017), <https://www.powderbulksolids.com/wire-cloth/fire-forces-evacuation-unilever-ice-cream-plant>; Chicago Tribune Staff, *7 People Taken To Hospital After Ammonia Leak At Streamwood Food Plant: Officials*, CHI. TRIBUNE (June 6, 2017), <https://www.chicagotribune.com/suburbs/elgin-courier-news/ct-streamwood-hazmat-0607-20170606-story.html>; Erica Shaffer, *Ammonia Leak Forces Tyson Foods Plant*

ammonia is 20,000 lbs., California rules cap allowable ammonia at 500 lbs. and New Jersey at 5,200 lbs.

## CONCLUSION

This rulemaking could not be more important or more urgent. EPA's action here will determine whether fence-line communities, workers, and first-responders receive health and safety protection from industrial chemical disasters that are preventable. EPA has a tremendous responsibility and obligation to finally end chemical disasters at industrial facilities in the United States and to bolster the important regulatory framework to stand vigilant in avoiding a future chemical catastrophe.

As EPA staff work on this rule, please keep at the front of your minds the faces, stories, and lived experience of the workers and the many members of fence-line communities who testified at the listening sessions and public hearings in 2021 and 2022 – as well as in similar sessions held in 2016 on the 2017 rule, and opposing the 2017 Delay Rule and 2018 Rollback Rule.<sup>331</sup>

Finally, please remember that EPA's final rule will be a test of this Administration's commitments to public health, environmental justice, and worker safety. We are now counting on EPA to finalize and strengthen this proposal to issue a new chemical disaster prevention rule that follows the science and the Clean Air Act, is stronger than ever before, and finally assures fence-line communities the maximum possible protection for health and safety.

Thank you for your time and consideration of these comments. For additional information, please contact any of the above-listed organizations, or Earthjustice (Emma Cheuse, Senior Attorney, [echouse@earthjustice.org](mailto:echouse@earthjustice.org); Michelle Mabson, Staff Scientist, [mmabson@earthjustice.org](mailto:mmabson@earthjustice.org); Robyn Winz, Senior Research Policy Analyst, [rwinz@earthjustice.org](mailto:rwinz@earthjustice.org); Victoria Huggett, Senior Litigation Assistant, [vhuggett@earthjustice.org](mailto:vhuggett@earthjustice.org)).<sup>332</sup>

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*Evacuation*, MEAT + POULTRY (May 18, 2017), <https://www.meatpoultry.com/articles/16398-ammonia-leak-forces-tyson-foods-plant-evacuation>.

<sup>331</sup> See 2022 Transcripts: EPA-HQ-OLEM-2022-0174-0160 (Sept. 28, 2022), EPA-HQ-OLEM-2022-0174-0157 (Sept. 26, 2022), EPA-HQ-OLEM-2022-0174-0158 (Sept. 27, 2022); July 8, 2021 Transcript, EPA-HQ-OLEM-2022-0174-0019; June 16, 2021 Transcript, EPA-HQ-OLEM-2022-0174-0012; June 14, 2018 Transcript, EPA-HQ-OEM-2015-0725-0985; April 19, 2017 Transcript, EPA-HQ-OEM-2015-0725-0798; March 29, 2016 Tr., EPA-HQ-OEM-2015-0725-0367.

<sup>332</sup> Non-lawyer Earthjustice signatories contributed to the scientific, research and factual portions of this document.