MEMORANDUM

TO: Rick Hind
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FROM: Scott Nelson
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RE: *EPA Authority to Require Inherently Safer Technology at Chemical Plants*

Chemical facilities with large stores of hazardous materials pose substantial threats of catastrophic releases that could kill or injure thousands of Americans. Although EPA has partially addressed threats from some of these facilities through Risk Management Plan Rules issued under section 112(r)(7)(B) of the Clean Air Act (CAA), 42 U.S.C. § 7412, those rules do not apply to all facilities that pose threats of hazardous discharge, and are also limited in failing to require facilities to use inherently safer technology—including readily available methods of minimizing risk by reducing or eliminating unnecessary and excessive quantities of hazardous materials. Similarly, rules issued by the Department of Homeland Security under its temporary authority to issue Chemical Facilities Anti-Terrorism Standards (CFATS) exempt many facilities and are prohibited from requiring specific security measures, including minimization of risk through the use of safer technologies.

Despite the inadequacy of existing regulatory measures, EPA has legal authority under existing statutes to take actions requiring safer technologies to reduce the possibility of catastrophic releases. In particular, section 112(r) contains two sources of authority: (1) the "general duty clause," section 112(r)(1), which imposes an obligation on all owners and operators of facilities that use extremely hazardous substances to "design and maintain a safe facility taking such steps as are necessary to prevent releases, and to minimize the consequences of accidental releases which do occur," 42 U.S.C. § 7412(r)(1); and (2) EPA's hitherto unused authority under section 112(r)(7)(A) "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." 42 U.S.C. § 7412(r)(7)(A).

1. The General Duty Clause

The general duty clause imposes a requirement that all chemical facility owners and operators take measures to prevent "accidental releases" of extremely hazardous substances—including measures that relate to the design and maintenance of their facilities and that minimize the consequences of releases. The statutory provision itself creates a legally enforceable duty that is effective without implementing regulations. Because implementing regulations are not necessary under the general duty clause, EPA has provided direction to its enforcement personnel, and to facilities that must comply with the clause, through "guidance" that explain how it will enforce the clause.

EPA's existing guidance does not state that the general duty clause requires use of safer technology that would prevent hazardous releases and mitigate their consequences by reducing the presence of hazardous materials. The language of the statute, however, readily encompasses, and even requires a reading under which the general duty clause mandates the avoidance of releases through the use of reasonably available technology that would prevent them. The clause, on its face, requires that the "design" of facilities be such as to "prevent releases" and "minimize the consequences of accidental releases that do occur." Designs that prevent releases and minimize their consequences by using available technology to reduce or eliminate the use of extremely hazardous materials fall readily within the scope of that language.

That the general duty clause is applicable to "accidental releases" does not in any way undermine EPA's authority to use it in this manner. For purposes of CAA § 112(r), an "accidental release" is defined as "an unanticipated emission of a regulated substance or other extremely hazardous substance into the ambient air from a stationary source." 42 U.S.C. § 7412(r)(2)(A). Proponents of the view that EPA should not use the general duty clause to require safer technologies have argued that this definition does not allow EPA to take action based on the possibility of releases caused by terrorism, because such releases are not "unanticipated" from the standpoint of the terrorists. The argument is incorrect for several reasons.

To begin with, although the use of safer technologies would be highly beneficial in reducing the likelihood of catastrophic releases caused by terrorism, it would be equally effective in preventing and mitigating the consequences of "traditional" accidents not caused by terrorism, such as the Bhopal release that was among the motivating factors in the enactment of § 112(r). Thus, EPA's authority to use the general duty clause for this purpose does not depend on whether releases resulting from terrorism are "accidental" within the meaning of the statute.

In any event, the argument that EPA may not consider the potential for releases caused by terrorism in using its authority to require prevention of "accidental releases" is not well-founded. The definition of "accidental releases" can easily be construed to encompass accidents that result from terrorism. In providing that an "accidental release" is one that is "unanticipated," the statute does not specify *by whom* it must be unanticipated. Given that the focus of the general duty clause is on owners and operators of facilities, however, the most natural reading of the clause would be that the definition is aimed at releases that are unanticipated *from the standpoint of facility owners and operators* (as opposed to releases that are a regular part of their operations, which are subject to CAA permitting requirements).

Such an interpretation would also be in accord with the way similar terms are treated in an analogous context in which legal consequences are attached to whether an event is "accidental": liability insurance, in which coverage typically is available unless an accident is "expected or intended from the standpoint of the insured."[1] By incorporating a similar concept of "accidental" in § 112(r), Congress likely intended to adopt a similar view of the standpoint from which whether an event was "unanticipated" should be determined.

At worst, the statute is ambiguous as to the standpoint from which an "accidental release" must be "unanticipated." In light of the possible ambiguity, an EPA determination that "unanticipated" means "unanticipated from the standpoint of the facility's owner or operator" would at least be entitled to deference under *Chevron U.S.A., Inc. v. NRDC*, 467 U.S. 837 (1984). In light of the statute's purposes of protecting the public against catastrophic releases, its delegation of broad authority to the agency, and its language, courts would be likely to defer to EPA's assertion of such authority.

Moreover, confirmation that Congress anticipated and approved of the possibility that EPA's authority under §112(r) could protect the public against the effects of accidental releases resulting from terrorist attacks on chemical facilities as well as other types of accidental releases can be found in language added to the subsection by the Chemical Safety Information, Site Security and Fuels Regulatory Relief Act of 1999, Pub. L. No. 106-40, 113 Stat. 207. Among other things, that legislation added a new provision, § 112(r)(7)(H)(ix), requiring the Attorney General to "submit to Congress a report that describes the extent to which regulations promulgated under this paragraph have resulted in actions, including the design and maintenance of safe facilities, that are effective in detecting, preventing, and minimizing the consequences of releases of regulated substances that may be caused by criminal activity." 42 U.S.C. § 7412(r)(7)(H)(ix).[2] The provision supplies express congressional recognition that EPA actions respecting "accidental releases" under the authorities granted by § 112(r) should be "effective" in addressing releases "caused by criminal activity" (including terrorism). The provision offers strong support that EPA may consider the effectiveness of its actions to prevent such releases, as well as their impact on other types of accidental releases, when exercising its powers under § 112(r).

Exercise of EPA's authority under the general duty clause to require appropriate uses of safer technology to reduce the likelihood and mitigate the consequences of catastrophic releases from chemical facilities thus is not precluded by § 112(r)'s definition of "accidental release," regardless of whether releases caused by terrorist attacks are among the releases EPA seeks to prevent. Any reliance on the general duty clause to impose such requirements must, of course, be consistent with other limitations on the scope of the general duty clause. Principal among those limitations is that the duty to identify and avoid hazards under §112(r)(1) is qualified by

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[1] *See* Jon Kalmuss-Katz, *Eco Anti-Terrorism: EPA's Role in Securing our Nation's Chemical Plants*, 18 N.Y.U. Envtl. L.J. 689, 709 & n.109 (2011).

[2] The term "this paragraph" as used in this provision refers to paragraph (7) of subsection (r), which, as discussed further below, provides EPA with regulatory authority to prevent "accidental releases."

language incorporating standards applicable under the Occupation Safety and Health Act's general duty clause. That is, § 112(r)(1) provides that chemical facility owners and operators has a general duty to identify and address risks "in the same manner and to the same extent as section 654 of Title 29" (the OSH Act's general duty clause). 42 U.S.C. § 7412(r)(1).

The OSH Act's general duty clause has been construed to require employers to protect workers against hazards that are "recognized" within their industries. *Duriron Co. v. Sec. of Labor*, 750 F.2d 28 (6th Cir. 1984). At least arguably, § 112(r)(1)'s statement that the general duty to avoid and mitigate accidental releases exists "in the same manner and to the same extent" as the general duty under the OSH Act indicates that a general duty clause violation would require that a chemical facility had disregarded a "recognized" hazard.

Assuming that reading of the statute is correct, it would not pose an obstacle to the use of the general duty clause to require appropriate uses of inherently safer technology to avoid or mitigate accidental releases by reducing or eliminating extremely hazardous substances. The hazards posed by unnecessary use and storage of large quantities of such substances are clearly "recognized," as actions by some facilities to eliminate unnecessary hazards (such as gaseous chlorine) demonstrate. Moreover, EPA's listing of hazardous substances under CAA § 112(r)(3), and the regular reporting by facilities (pursuant to risk management plans required under regulations promulgated under § 112(r)(7)(B)) of worst-case scenarios for the release of such substances, also demonstrate that the hazards that EPA would be addressing under the general duty clause are widely recognized. Guidance on the use of safer technology to avoid or mitigate hazardous releases would easily comply with the limitation imposed by the incorporation of the OSH Act standard, as long as the agency's guidance addressed materials (and quantities of those materials) that are recognized to be hazardous.

2. Regulatory Authority Under § 112(r)(7)(A)

EPA regulatory authority under § 112(r)(7)(A) provides an additional source of authority that the agency could exercise—either in the alternative to or as a complement to use of its authority under the general duty clause—to require chemical facilities to avoid or mitigate releases through the use of safer technologies. Section 112(r)(7)(A) provides the agency broad authority (which it has apparently never exercised) to regulate chemical facilities in order to prevent accidental discharges:

> In order to prevent accidental releases of regulated substances, the Administrator is authorized 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. Regulations promulgated under this paragraph may make distinctions between various types, classes, and kinds of facilities, devices and systems taking into consideration factors including, but not limited to, the size, location, process, process controls, quantity of substances handled, potency of substances, and response capabilities present at any stationary source. Regulations promulgated pursuant to this subparagraph shall have an effective date, as determined by the Administrator, assuring compliance as expeditiously as practicable.

42 U.S.C. § 7412(r)(7)(A).

The authority conferred by § 112(r)(7)(A) clearly encompasses the power to require the use of safer technology to reduce or eliminate quantities of extremely hazardous substances. The provision specifically authorizes the imposition of "design" and "operational" requirements, and further authorizes EPA to make distinctions among facilities based on "process controls, quantity of substances handled, [and] potency of substances." This authority seems ideally suited to serve as the basis for regulations that require that facilities be designed and operated in such a manner as to minimize quantities of highly potent hazardous substances. And it permits regulation of any stationary source, thus permitting the agency to regulate without regard to whether "threshold" quantities of substances are present (as under regulations pursuant to § 112(r)(7)(B)) and without restrictions on the types of facilities subject to regulation (such as the limits imposed on DHS in establishing Chemical Facilities Anti-Terrorism Standards).

Like EPA's enforcement authority under the general duty clause, the agency's regulatory authority under § 112(r)(7)(A) is to "prevent accidental releases." But for the same reasons already discussed, the definition of "accidental releases" does not preclude the agency from requiring inherently safer technology simply because such measures would reduce the likelihood of releases caused by terrorist attacks as well as releases caused by other types of accidents. Indeed, that the agency may consider the efficacy of regulations under § 117(r)(7)(A) in preventing or mitigating releases caused by terrorism is confirmed by the fact that § 117(r)(7)(H)(ix), which requires the Attorney General to report on whether EPA's regulations effectively respond to the terrorist/criminal threat, expressly refers to EPA's regulatory authority under § 112(r)(7).

3. Conclusion

EPA has ample authority under two parts of § 112(r)—the general duty clause and the authority to promulgate regulations to prevent releases—to take actions to require chemical facilities to use safer technologies to reduce or eliminate extremely hazardous substances that pose threats of catastrophic release, whether as a result of terrorist attack or other accidents. Congress has never acted in a way that would divest EPA of that authority — indeed, as discussed above, the additional language added to § 112 in 1999 underscores the existence of that authority. Nor does the legislation temporarily authorizing DHS to promulgate the CFATS remove any of EPA's authority: Giving DHS authority to require security plans for certain facilities is in no way inconsistent with EPA's retention of authority to enforce substantive release-prevention standards under either the general duty clause or § 112(r)(7)(A) regulations. Indeed, the legislation authorizing CFATS specifically states that it does not "supersede, amend, alter, or affect" any existing regulatory authority with respect to hazardous chemicals under federal law. Pub. L. No. 109-295, § 550(f), 120 Stat. 1355 (2006).

EPA's authorities under § 112(r)(1) and § 112(r)(7)(A) are not mutually exclusive and, procedurally, are exercised in different ways. EPA has authority under the general duty clause to take action immediately to address recognized hazards created by the use of unsafe technologies by chemical plants, and need only issue informal guidance to its enforcement personnel and the regulated industries in order to begin exercising this authority. The authority under § 112(r)(7)(A), by contrast, must be exercised through notice-and-comment rulemaking, but, unlike the general duty clause, is not limited by reference to the scope of the OSH Act's general duty clause. Thus, through regulations, EPA can potentially move against a broader range of hazards. Moreover, regulations may be better suited to providing precise standards applicable to

particular types of facilities. These considerations suggest the desirability of EPA's exercise of both authorities, with more urgent and obvious hazards addressed under the general duty clause, while the agency prepares to go forward with the lengthier process of issuing regulations under § 112(r)(7)(A).