

**TESTIMONY OF PROFESSOR TRACY HESTER
BEFORE THE US SENATE SUBCOMMITTEE ON SUPERFUND,
WASTE MANAGEMENT AND REGULATORY OVERSIGHT
AT THE HEARING ON
CHALLENGES FACING SUPERFUND AND WASTE CLEANUP
EFFORTS FOLLOWING NATURAL DISASTERS**

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My name is Tracy Hester, and I am a faculty member of the University of Houston Law Center. I would like to thank Chairman Rounds, Senator Harris and the other members of the committee for inviting me to appear today. I am testifying in my individual capacity, and so my statement does not represent the views of the University of Houston Law Center or the University of Houston. I also am of counsel at the law firm of Bracewell LLP, and serve on several environmental non-profit and charitable organizations. My comments do not represent their views either. I request that my full written testimony be included in the record.

In general, the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA) gives the U.S. Environmental Protection Agency broad powers to deal with the effects of natural disasters on contaminated sites and response actions. In particular, CERCLA section 106 empowers the agency to undertake emergency actions to abate releases or threatened releases of hazardous substances that pose an imminent endangerment to human health and the environment. EPA, for example, can issue section 106 emergency orders to responsible parties to require them to take actions to prevent threatened releases resulting from natural disasters, and the federal government itself obviously can undertake its own removal actions to minimize threatened risks.

These powers under section 106 can also deal with contaminated sites that EPA has not included on the National Priorities List or provided federal funds for a response action.

Under CERCLA's sweeping grant of emergency authority to EPA, the agency has broad discretion to incorporate expanded requirements for disaster planning and responses in its CERCLA remedial action selections and post-disaster responses. To the extent that Congress wants to commit EPA to undertake proactive disaster planning in its remedial action selections and to respond more quickly to disaster impacts at existing CERCLA sites, there are a few logical places to include those requirements explicitly in the statutory text. It should be noted, however, that these suggested revisions pertain to CERCLA and response sites under its jurisdiction. The requirements for hazardous waste generators, transporters, and treatment/storage/disposal facilities fall under the Resource Conservation and Recovery Act (RCRA) and would require wholly different statutory and regulatory revisions, and the regulation of environmental dangers created by on-site storage of hazardous chemicals occurs under other statutes (in particular, the Risk Management Program under section 112(r) of the Clean Air Act).

I. Potential Statutory Revisions.

If Congress wishes to focus EPA's management of natural disaster risks at CERCLA sites, it could deploy statutory language to require the express consideration of resilience and risk minimization from natural disasters in several different portions of the statute.

Remedy selection. CERCLA already includes a statutory preference for remedies that permanently and significantly reduce the volume, toxicity or mobility of hazardous substances or pollutants at the site. 42 USC § 9621(b)(1). It includes a list of factors that EPA must consider when selecting a remedy that attains this standard, and Congress could explicitly direct the agency to select a remedy that minimizes the risk of future releases from natural disasters or extreme weather events. Congress, for example, could add that language as a new subsection (H) after section 9621(b)(1)(G).

In addition to statutory criteria for selection of remedial actions, EPA can also take advantage of existing requirements that CERCLA remedial sites have Health and Safety Plans (HASPs) which include Emergency Response/Contingency Plans. The contingency plans set out the procedures for notifying site personnel about emergency situations, evacuation procedures, identification of site hazards, site control measures, and spill containment. While EPA frequently conducts expedited reviews of CERCLA sites in the projected pathways of major storms and hurricanes, it might specifically review all CERCLA HASPs and contingency plans for sites in areas that might be affected by natural disasters such as hurricanes, tornadoes, and wildfires. This review could extend to other contingency plans and emergency response systems under other environmental statutes such as the Clean Air Act (under the Risk Management Program), RCRA, and the federal Clean Water Act's Spill Prevention, Control and Countermeasure planning program.

Site prioritization and ranking. CERCLA requires EPA to review remedial actions every five years to determine if they remain protective of human health and the environment. 42 USC § 9621(c). Congress could add a brief provision to require EPA to assess whether the selected remedy remains protective in light of current or evolving projections about possible natural disasters or extreme weather events. To the extent that a state already requires such an assessment of potential vulnerability to natural disasters in its cleanup programs or other environmental permitting, Congress could also specify that such state rules would constitute an applicable or appropriate and relevant requirement that EPA must satisfy in selecting a remedy. 42 USC § 9621(d)(2)(A)(ii). Along the same lines, while EPA currently considers weather in its Hazard Ranking Scores to identify CERCLA sites and accounts for weather-caused releases when it approves removal actions, the agency could use site-specific risk assessment methodologies and assumptions to prospectively assess exposure risk from stabilized but not-yet fully remediated sites. For example, while the selection of remedial actions may rely on inhalation and ingestion factors derived from remediation goals acceptable for indoor workers, construction workers, and subsistence fishermen, these goals could also use site-specific factors that include site stability during weather events.¹

Clarification of Act of God defense. While this legal issue has not yet surfaced in any enforcement or cost recovery actions after this season's disasters (to my knowledge), uncertainty over the availability of the Act of God defense under 42 USC § 9607(b) could

¹ My thanks and appreciation to Mary Ellen Ternes, of Earth & Water Law LLC in Oklahoma City, for some of the observations and insights in this section.

slow or complicate emergency actions by potentially responsible parties. Congress can clarify that the Act of God defense does not apply to natural disasters (even if unprecedented) that can be reasonably foreseen and mitigated.² Alternatively, EPA has the capacity to include language in its Model Consent Decree for Remedial Designs/Remedial Actions that would accomplish the same purpose through tailored site-by-site agreements over remedial work performed by responsible parties. Congress could use approaches short of actual statutory modifications, such as directions accompanying funding legislation, to direct EPA to develop and include such language in its model RD/RA consent decree.

II. Resources and operational flexibility.

Within its existing authorities, EPA has historically taken proactive steps to anticipate the operational impacts of hurricanes and other predictable weather events on CERCLA sites. For example, on-scene coordinators will routinely assure that wastewater storage lagoons have been pumped down at their CERCLA sites' to provide sufficient space for additional rainfall and that dikes and other stormwater management structures have been shored up before a major storm strikes. This rapid assessment and disaster preparation has typically benefited from a strong and successful working relationship between EPA regional offices and state environmental agencies who jointly respond to

² To some extent, narrow interpretations of CERCLA's Act of God defense in section 107(b) already withhold the defense from persons who could have anticipated a natural disaster or event that caused the hazardous substance release and taken reasonable steps to forestall the release. For an excellent and exhaustive discussion about the limited availability of CERCLA's Act of God defense, see C. Villa, *Is "The Act of God" Dead?*, 7:2 WASH. J. ENV. L. & POL'Y 320 (2017).

extreme weather events or other disasters. EPA should continue its programs and efforts in this regard.

Despite these efforts, one of the public's largest concerns about releases from CERCLA sites during disasters is whether EPA and other first responders have the capacity to inspect sites while a disaster is occurring (or immediately afterward). EPA and state agencies have taken large strides to address these concerns through the ASPECT aircraft monitoring program and the PHILIS mobile laboratory initiative, but Congress could help expand these capacities through authorizing and funding a pilot program specifically to enhance first responder technology during disasters. This program could test and confirm the viability of enhanced remote sensing technologies and drone monitoring and sampling methods that would allow quick data collection without jeopardizing emergency response teams.

II. Conclusion.

As storms, hurricanes, and wildfires have become more severe, their impacts on CERCLA sites and hazardous waste facilities will pose a growing concern. EPA has substantial power and discretion under CERCLA, RCRA, and other response authorities to anticipate these dangers and require greater resilience in remedy selections, cleanup implementations, and site investigations after disasters. Congress, nonetheless, can help assure that EPA addresses these concerns through either careful direction to the agency about its regulatory implementation of cleanup requirements and its demands of

responsible parties conducting cleanups. Congress can also provide resources and direction to foster innovative and responsive technologies to bolster its capacity for immediate and accurate investigations and responses at sites in the immediate aftermath of disasters.

Thank you for allowing me to speak at today's hearing. I would be happy to answer any of your questions.