Democratic senators are asking the Government Accountability Office (GAO) to investigate how well EPA is prepared to protect Superfund sites from the impacts of natural disasters caused by climate change -- such as strong hurricanes, flooding, wildfires and sea-level rise -- and to suggest actions to mitigate their risks.

The request to GAO comes in the aftermath of three major hurricanes this year that caused significant damage in the southern United States, Puerto Rico and U.S. Virgin Islands as well as devastating wildfires in California. Relevant documents are available on InsideEPA.com. (Doc. ID: 207547)

The report could help Democrats and their allies advocate for making cleanups and waste sites more resilient to the effects of climate change after they raised concerns earlier this year that Trump administration efforts to roll back the Obama administration's climate policies could undercut EPA work to make Superfund cleanups more "resilient" to the adverse effects of climate change.

EPA under the Obama administration was active in developing strategies to prepare for climate impacts to Superfund sites. For instance, in 2013 the agency's waste office identified 26 priority actions to begin implementing across its programs to address potential vulnerabilities due to climate change, including reviewing Superfund remedies' effectiveness and evaluating emergency planning resources.

But Mathy Stanislaus, who headed EPA's waste office under President Obama, told Inside EPA earlier this year that he expects there would be a "strong hesitancy" among career staff to include climate change adaptation in remedies or to adopt green remediation approaches that seek to reduce greenhouse gases given the administration's strong signals on climate change.

Senators on the Environment & Public Works (EPW) Committee raised their concerns over the impacts of climate change on waste sites both at a Dec. 6 hearing highlighting challenges facing waste cleanup in the wake of natural disasters and in a Dec. 4 letter to GAO requesting a study.
In the GAO request, the senators ask the office to "undertake a study on the risks to human health and the environment posed by natural disasters' impacts on Superfund sites and evaluate what federal actions may be taken to reduce those risks."

The letter is signed by Sens. Kamala Harris (D-CA), Sheldon Whitehouse (D-RI), Tom Carper (D-DE), Ben Cardin (D-MD), Tammy Duckworth (D-IL), Bernie Sanders (D-VT), Jeffrey Merkley (D-OR), Kirsten Gillibrand (D-NY), Cory Booker (D-NJ) and Edward Markey (D-MA), all EPW members.

The letter to GAO notes the increase in frequency and intensity of natural disasters in recent decades, now being exacerbated by climate change. The lawmakers point to a 2017 special report from the U.S. Global Change Research Program, which found a sea-level rise of 8 inches since 1900, and projected an increase of another 1-4 feet by 2100.

This is expected to increase extreme flooding stemming from coastal storms, they say. Heavy precipitation events are also expected to rise in frequency and intensity over this century, likely prompting more flooding, they say. Strong storms such as Hurricanes Harvey, Maria and Irma also bring damaging winds and storm surge, they note.

They cite EPA's assertions, made in previously posted documents on the agency's website that have now been removed, that cleanup work at contaminated sites "may be vulnerable to the impacts of climate changes," such as through increased inland flooding and other effects.

The Superfund National Priorities List (NPL) contains more than 1,700 sites, with 1,377 deemed as active, and many of those are found along the coast or in floodplains susceptible to extreme weather events, the letter says.

The senators ask GAO to find out "[w]hat is currently known about the number and types of Superfund sites that may be impacted by various natural disasters" and which of these is likely to be affected by extreme weather events? Further, they ask what are the known health risks posed by sites that may be impacted by sea-level rise, storm surges or other impacts due to extreme storms.

And they ask, "How, if at all, is the EPA's Superfund program assessing, managing, and reducing these risks? How, if at all, are these risks being communicated to the public?" they add.

They also raise concerns about drops in funding Superfund, citing a 2015 GAO report that found declining annual appropriations between 1999 and 2013, which prompted EPA to delay cleanup actions at NPL sites. "What impact, if any, has the reduction in federal funding had on EPA's ability to address the threat natural disasters pose to Superfund sites?"

Harris, ranking member on the EPW Superfund subcommittee, alluded to the request during the Dec. 6 subcommittee hearing, noting the senators are asking how EPA is taking climate change impacts into consideration when assessing Superfund sites.

She asked hearing witness Matthew Rodriguez, secretary of California EPA, what concerns his agency has regarding impacts from climate change on Superfund and hazardous waste sites. Rodriguez responded that he has a number of concerns because those effects pose a threat if not controlled. He said the agency has a number of guidelines under development that will set standards to prepare Superfund sites. These include an adaptation guideline.
He also said the agency wants to work with EPA to include the federal agency in the planning process.

Hurricane Harvey, which caused significant damage to the Houston area this year, resulted in damage to one Superfund site -- the San Jacinto River Waste Pits site -- Texas Commission on Environmental Quality Chairman Bryan Shaw told the subcommittee during the hearing. The protective cap at the site was removed, so regulators know contaminated material was exposed, he said, adding though that it has been difficult to determine how much contamination was released.

Subcommittee Chairman Sen. Mike Rounds (R-SD) said the panel would "carefully" review suggestions to amend Superfund law made by witness **Tracy Hester, a professor with the University of Houston law center.**

Hester identified minor modifications to the Comprehensive Environmental Response, Compensation & Liability Act (CERCLA) in order to make responses at Superfund sites more resilient in the face of natural disasters. He suggested Congress could amend remedy selection by adding a new subsection (H) after section 9621(b)(1)(G) to "explicitly direct the agency to select a remedy that minimizes the risk of future releases from natural disasters or extreme weather events," his written testimony says.

Second, EPA could also be directed to undertake a prospective review of all health and safety plans for sites located in areas likely to be affected by natural disasters, his testimony says. He said at the hearing if there is no emergency response plans in place for any of those sites, then EPA could ensure those are upgraded in advance.

Third, he suggested Congress add a short provision to the CERCLA requirement that EPA review remedial actions every five years to ensure they remain protective. The addition could "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," his testimony says. He testified also that Congress could also require that all state-based laws that require disaster resilience and planning be considered an applicable or appropriate and relevant requirement that EPA must meet when selecting a remedy.

Further, Hester noted at the hearing that some potentially responsible parties are raising questions about whether a hurricane like Harvey or other 500- or 1000-year storms will be considered an "act of God," and whether they will be required to clean up sites that already have been remediated. In his written testimony, he said while this legal issue has not yet surfaced in any enforcement action after the recent hurricanes, "uncertainty over the availability of the Act of God defense under [CERCLA's section 9607(b)] could slow or complicate emergency actions by [PRPs]." He suggested that Congress clarify that this defense "not apply to natural disasters (even if unprecedented) that can be reasonably foreseen and mitigated."

He also noted that one of the biggest concerns in a disaster like Harvey was the public's concern about whether releases occurred at waste sites. He said discussion is already underway in EPA's enforcement office to allow drones to take samples or to do multi-spectral remote analysis in order to obtain preliminary data to assuage public concerns.

When asked by Rounds about his view of Hester's recommendations, Shaw said some of the suggestions may be helpful but cautioned against a one-size-fits-all or too prescriptive approach.
At the hearing, Booker also pushed for reinstating the "polluter pays" industry taxes to pay for Superfund, noting the downturn in funding for the program. He, along with co-sponsors Whitehouse and Sen. Robert Menendez (D-NJ), introduced S. 2198 Dec. 6. -- Suzanne Yohannan

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