TESTIMONY OF BARRY BREEN
PRINCIPAL DEPUTY ASSISTANT ADMINISTRATOR
OFFICE OF SOLID WASTE AND EMERGENCY RESPONSE
U.S. ENVIRONMENTAL PROTECTION AGENCY
BEFORE THE OVERSIGHT SUBCOMMITTEE
ENVIRONMENT AND PUBLIC WORKS COMMITTEE
UNITED STATES SENATE

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Chairman Booker and members of the subcommittee, I am Barry Breen, Principal Deputy Assistant Administrator for EPA's Office of Solid Waste and Emergency Response (OSWER). Thank you for the opportunity to appear today to discuss the Superfund program's accomplishments and challenges. Accompanying me today is EPA Region 2 Administrator Judith Enck who is available to answer site specific and program related questions associated with New Jersey, New York, Puerto Rico and the U.S. Virgin Islands.

THE SUPERFUND PROGRAM

The Superfund program has a variety of tools to help protect human health and the environment. These include shorter-term removal actions to mitigate immediate threats to human health and the environment and remedial actions, which address more complex and longer-term cleanup of hazardous waste sites.

Each year, more than 30,000 emergencies involving the release (or threatened release) of oil and hazardous substances are reported in the United States, with emergencies ranging from small scale spills to large events requiring prompt action and evacuation of nearby populations. EPA coordinates and implements a wide range of activities to ensure that adequate and timely response measures are taken in communities affected by hazardous substances and oil releases,

where state and local first responder capabilities have been exceeded, or where additional support is needed. EPA conducts time-critical and non-time-critical removal actions when necessary to protect human health and the environment by either funding response actions directly or overseeing and enforcing actions conducted by potentially responsible parties (PRPs).

Through shorter-term actions, the Superfund program controls exposure to hazardous substances so that human health is protected while long-term cleanup is underway. For example, where EPA determines that existing water supplies are unsafe due to releases from contaminated sites, we provide alternative sources of drinking water. EPA has provided more than 2.1 million people near or on Superfund National Priorities List (NPL) sites with alternative sources of drinking water.

In 2013, the Superfund Removal and Emergency Response programs conducted or provided oversight for 304 emergency response and removal cleanup actions. To date, more than 11,000 removals at both NPL and non-NPL hazardous waste sites have been completed to reduce the immediate threat to human health and the environment.

The Superfund Remedial program continues to protect human health and the environment by addressing high priority, more complex, often multimedia, longer-term cleanups. While there is no common way to characterize communities located near Superfund NPL sites, EPA analysis of the latest census data found that approximately 49 million people live within 3 miles of Superfund NPL sites as well as Superfund Alternative Agreement sites. This population is predominately minority, low income, and less likely to have a high school education than the U.S. population as a whole. As a result, these communities may have fewer resources with which to address concerns about their health and environment.

Through FY 2013, EPA and its state and tribal partners completed final assessments at more than 42,000 contaminated sites. In addition, through May 2014, 1,701 sites have been placed on the NPL with cleanup construction completed at 1,158 NPL sites, which represents approximately 68% of the sites listed on the NPL. All response actions have been completed at 375 sites (approximately 22% of the sites on the NPL), resulting in deletion from the NPL. Further, the Superfund program continued its focus on controlling potential human exposure at NPL sites. In FY 2013, human exposure was brought under control at an additional 13 sites resulting in a cumulative total of 1,389 NPL sites where human exposure is under control. And groundwater migration was brought under control at an additional 18 sites resulting in a cumulative total of 1,091 NPL sites where contaminated groundwater migration is under control.

Throughout the Superfund cleanup efforts, there is a commitment to meaningfully involve communities and follow through on Administrator Gina McCarthy's goal to make a visible difference in communities across the country. Transparency, access and public involvement are essential to meaningful and deliberate decision-making. EPA helps communities effectively participate in EPA decision-making by providing technical assistance through our Technical Assistance Grant and Technical Assistance Services for Communities programs. Bringing together diverse groups of community members through forums such as the Community Advisory Group better informs our decisions and actions to protect Americans where they live, work, play, and learn.

We are paying particular attention to how the Agency can improve its technical assistance processes. We recognize there are organizations outside of EPA that provide independent technical assistance, and are looking to expand opportunities for cooperation

between EPA and colleges, universities, and nonprofits with the shared goal of assessing and addressing the unmet technical assistance needs of impacted communities.

As the Superfund program has continued to mature and evolve, EPA has looked for additional ways to assess remedial program progress beyond the number of sites that have reached construction completion and help keep the public informed about site cleanup milestones. To better measure long-term progress, the program adopted a Site Wide Ready for Anticipated Use (SWRAU) measure. This measure tracks the number of NPL sites where the remedy is constructed (construction complete) and all of the engineering and institutional controls are in place to ensure the remedy is protective for reasonably anticipated uses over the long-term. Those anticipated uses and needed controls are outlined in the site Record of Decision (ROD). Through FY 2013, EPA determined 662 sites to be SWRAU.

EPA is continuing its efforts to efficiently utilize every dollar and resource available to clean up contaminated sites and to protect human health. In FY 2013, EPA's Superfund program obligated more than $230 million in appropriated funds, $21 million in state cost-share contributions and $82 million in responsible party settlement resources, for a total of $333 million to conduct cleanup construction and post-construction work at Superfund sites.

In addition, EPA has been very successful in leveraging federal enforcement dollars to secure private party cleanups. In FY 2013, EPA secured commitments from PRPs to perform cleanups and reimburse EPA for past costs worth more than $1.5 billion. The cumulative value of private party cleanup commitments and cost recovery settlements is more than $38 billion. EPA's enforcement efforts have allowed the program to focus EPA's appropriated funds on sites where PRPs cannot be identified or are unable to pay for or perform the cleanup.

EPA has also been particularly effective in leveraging its appropriated funding through the use of responsible party settlements to establish site-specific special accounts. Through the end of FY 2013, EPA has collected approximately $4.5 billion (including earned interest) in more than 1,200 site-specific special accounts. Of this amount, EPA has obligated or disbursed $2.8 billion for site-specific response actions, and developed multi-year, site-specific plans for using more than 99% of the $1.7 billion that remains available to help fund response actions. These funds will be used to conduct response work in addition to appropriated resources used at sites where PRPs cannot be identified or are unable to pay for or perform the cleanup.

The importance of Superfund cleanup is highlighted by recent academic research published in the *American Economic Review*[1] that found investment in Superfund cleanups reduces the incidence of congenital abnormalities by roughly 20-25 percent for those living within 5,000 meters of a site. In addition, the Superfund program not only benefits communities by protecting human health and the environment but it helps generate community economic benefits. A January 2012 study[2] completed by researchers at Duke University and the University of Pittsburgh examined the localized benefits from the cleanup of Superfund sites across the United States. Using census tract data, the researchers found that deletion of sites from the NPL after cleanup, significantly raises the value of owner-occupied housing within 3 miles of the site by 18.6% to 24.5%. Furthermore, property values were observed to increase at the site listing and construction completion program milestones.

[1] Currie, Janet, Michael Greenstone, and Enrico Moretti. 2012. "Superfund Cleanups and Infant Health". *American Economic Review,* 101(3): 435-441

[2] Gamper-Rabindran, Shanti and Christopher Timmons. 2013. "Does cleanup of hazardous waste sites raise housing values? Evidence of spatially localized benefits," Journal of Environmental Economics and Management 65(3): 345-360

In addition, the Superfund program history of engaging communities in the future use of sites has resulted in more than 700 sites that are in actual, continued or planned reuse. At 373 sites that have been studied[3], there are 2,240 businesses generating $32.6 billion in annual sales, providing over 70,000 jobs and $4.9 billion in employment income.

The Universal Oil Products (Chemical Division) Superfund site located in East Rutherford, New Jersey is an example of how cleanup can lead to beneficial use of a Superfund site. Once home to a chemical and solvent recovery facility, the site now supports several shopping areas and a rail line extension. The rail extension, known as the Sports Line, connects the commuter rail line on site with nearby MetLife Stadium, home of the New York Giants and New York Jets and was the site of the 2014 Super Bowl. Public transportation ridership on the Sports Line saves about 170,000 vehicle miles traveled during each football game. Businesses on site support about 254 jobs and contribute more than $8 million in annual employment income to the local community.

Another example of cleanup and beneficial use is the Industri-Plex Superfund site in Woburn, Massachusetts. Past industrial practices had led to significant soil contamination and the closing of two municipal water supply wells. EPA added the site to the NPL, and response actions have included the excavation and removal of debris and contaminated soils, treatment of contaminated soils, and extraction and treatment of contaminated ground water. Today, this formerly contaminated site is now home to the $10 million James Anderson Regional Transportation Center that relieves congestion on several highways leading into Boston and eases the commutes of many area residents. In addition, the site hosts a new interstate highway

[3] Economic data provided for the 373 Superfund sites known to be in revenue-generating re-use include annual sales, number of employees and annual employment income collected in 2012 and 2013, from the Hoovers Dun and Bradstreet database and from Manta.com

exchange, a 200,000 square foot shopping center, an office park, and a hotel complex. Site cleanup also restored wetlands and provided recreational green space for area residents.

EPA also supports the cleanup and beneficial use of federal facility sites through its Superfund program oversight role. The Curtis Bay Coast Guard Yard in Baltimore, Maryland achieved the Construction Completion milestone in 2013, resulting in the fastest Superfund cleanup of a federal facility in the State of Maryland. EPA partnered with the Coast Guard and the State of Maryland to conduct an eleven-year cleanup project which included excavating thousands of tons of contaminated soil and sediment while making use of innovative green practices. The cleanup contributes to the Chesapeake Bay restoration efforts and incorporates many sustainable manufacturing practices including creation of its own electricity from landfill gas at an on-site co-generation plant.

SUPERFUND PROGRAM CHALLENGES AND ACTIONS TAKEN

While Superfund continues to make progress cleaning up hazardous waste sites, we still face numerous challenges. One such challenge is the Superfund Remedial Program's appropriated budget, which has declined from the FY 2011 enacted level of $605 million to $500 million in FY 2014. The decline in EPA's appropriated resources has resulted in a continued backlog of sites with unfunded new projects that are ready to start construction where other alternatives, such as PRPs conducting the work or special account resources, are not available for those projects. To help address some of the impact on new project starts, the FY 2015 President's budget requests an increase of $43 million for the Superfund Remedial Program. In addition to challenges associated with funding new start projects, the Superfund budget for federal facility oversight has been particularly hard hit with a significant decrease in FY 2014. The enacted budget was 21% lower than the FY 2014 President's budget request. The decrease has created a

challenge to EPA's NPL oversight activities and may create situations where Agency technical approval of NPL site cleanup documents are delayed. A further budget challenge is related to the need to more effectively manage cleanup resources to address the largest and most complex sites that have come to demand an increasing proportion of EPA's Superfund resources.

To address these Superfund program challenges, EPA is integrating programmatic improvements across all stages of the cleanup process. We are working to integrate and leverage the Agency's land cleanup authorities to put previously contaminated sites back into productive use while protecting human health and the environment. EPA is also improving our cleanup enforcement activities as a means to address the funding challenges that our program faces. By obtaining responsible party participation in conducting and/or financing cleanups, we preserve Superfund monies to address sites where there are no viable responsible parties.

Starting in FY 2011, EPA began reporting on a Superfund NPL site cleanup performance measure called "remedial action project completions." Projects under this category represent specific discrete actions, such as a particular media remediated (groundwater contamination), areas of a site remediated (discrete areas of contamination, building demolition, etc.), or particular technologies employed (soil vapor extraction). By highlighting this more focused aspect of the cleanup process as a performance measure, EPA can monitor incremental progress and can provide communities with greater opportunity to evaluate and hold EPA accountable for specific work conducted in the field in addition to overall progress toward risk reduction and reuse at Superfund sites.

In FY 2012, EPA completed a comprehensive "National Strategy to Expand Optimization Practices from Site Assessment to Site Completion." This Strategy institutes changes to Superfund remedial program business processes to take advantage of newer tools and strategies

that promote more effective and efficient cleanups. It lays out several objectives to achieve verifiably protective site cleanups faster, cleaner, greener and cheaper using techniques throughout the life cycle of site cleanup, including site evaluation, construction and operation and maintenance. The Strategy also capitalizes on the benefits of optimization through multiple processes including: work planning, communicating, training, implementing, measuring and cost accounting. As part of this Strategy, EPA expects regions to systemically apply optimization concepts throughout all phases of the remedial pipeline as a normal business practice. For example, at the Pemaco Superfund site in California, EPA reduced monitoring costs from approximately $443 thousand per year to $230 thousand per year using groundwater remedy optimization strategies.

In FY 2013, EPA undertook the Superfund Remedial Program Review as a follow on to the earlier Integrated Cleanup Initiative and in recognition of the need to continue to critically evaluate program resources and cleanup processes to minimize impacts to the Superfund remedial program's effectiveness in protecting human health and the environment brought on by budget constraints, workforce and technology changes. The Review's Action Plan was released in November 2013 outlining short- and long-term cleanup and program management activities. Since that time, the Groundwater Remedy Completion Strategy has been released and work on a new acquisition framework is underway. Many of the activities (35 of the 49 actions) are already underway including continued efforts in developing community engagement.

EPA has also completed four pilot projects that were designed to evaluate alternative approaches to achieving site cleanups more efficiently. Under these pilot projects, creative, non-traditional approaches for managing site cleanups were explored with exceptional results. The projects demonstrated business process innovations that are returning property to communities

sooner, accelerating the potential for reuse and the creation of new jobs. In several instances, tested approaches accelerated work at sites by roughly 50 percent or more. Lessons learned from these pilots have been shared with EPA Superfund program staff at both EPA headquarters and the regions, as well as with the Superfund remedial action contracting community. In addition, the results of these pilot projects are being used to shape the development of new Superfund contracts, policies, and tools that can be used to increase the pace of cleanup at sites.

CONCLUSION

The Superfund program continues to make progress in the face of a number of challenges and will continue protecting human health and the environment by responding to immediate and long-term threats through the cleanup of releases and hazardous waste sites. EPA believes its ongoing program efforts will help support continued cleanup progress and address critical aspects of Superfund program challenges.