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**BEFORE THE
SUBCOMMITTEE ON ENERGY AND POWER
COMMITTEE ON ENERGY AND COMMERCE
UNITED STATES HOUSE OF REPRESENTATIVES**

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Mr. Chairman, thank you for the opportunity to appear before the Committee to address the subject of today's hearing - HR 4255, a bill that would prohibit the U.S. Environmental Protection Agency (EPA) from awarding any grant, contract, cooperative agreement or other financial assistance under Section 103 of the Clean Air Act for any program, project or activity to occur outside the United States and its territories and possessions.

The EPA uses grants as the primary mechanism for supporting international collaboration under Section 103 of the Clean Air Act. My testimony this morning will therefore focus on the benefits provided by the EPA's Section 103 international grants.

EPA Grants Program and Section 103 Background

The EPA formalized its procedures for the clearance of international grants in 1972. Since that time, administrations under both parties consistently have used the agency's grant authorities to support public health and environmental protection globally. This history highlights the importance and bi-partisan nature of this practice.

The EPA's international grants comprise a very minor proportion of the Agency's overall grant budget, ranging from 0.14% to 0.60% over Fiscal Years (FY) 2008-2011. Furthermore, EPA's appropriations are not the exclusive source of funding for international grants. In FY 2010, for example, funding from other Federal agencies accounted for 5% of the total amount spent on EPA grants identified as involving international activities. Finally, the majority of funds for grants that include an international component are actually spent here at home. A review of the EPA's FY 2008 to FY 2011 international grants, including those awarded under Section 103 authority, indicates that roughly two-thirds of the award total was directed towards work in the US, with the rest of the funds designated for efforts overseas.

While the EPA's investment in international grants is comparatively small, these grants play an important role in protecting the health and environment of American citizens. They support cooperation with other nations in reducing emissions of transboundary and global air pollutants affecting the United States, thereby increasing the nation's environmental protection. They also serve broad foreign policy interests. Section 103 grants for foreign projects are a critical component of the Agency's international grant portfolio. They are awarded with the concurrence of the Department of State, and address major environmental priorities, including improving air quality, reducing exposure to mercury, reducing methane emissions, and building strong environmental institutions and legal structures. Assisting foreign governments to build their regulatory capacity for air quality not only reduces emissions that can have adverse environmental impacts on the United States; it also can benefit U.S. companies by helping to ensure that foreign manufacturers and exporters are subject to similar regulatory requirements.

The Importance of Global Air Pollution

As mentioned earlier, the Agency's grant spending is overwhelmingly focused on domestic activities as appropriate given that the majority of environmental harm within the United States is the result of activities within the United States. However, as explained in greater detail below, air pollution does not stay within the geographic boundaries of its country of origin, and as such, some level of spending to improve environmental quality internationally is appropriate in part due to the effect this pollution may have on the United States.

The Organization for Economic Cooperation and Development (OECD) reports that air pollution is set to become the world's top environmental cause of premature mortality, over taking dirty water and lack of sanitation. The number of premature deaths from exposure to PM is projected to more than double worldwide from over 1 million per year today to nearly 3.6 million per year by 2050, particularly in Asia. Similarly, the number of premature deaths from exposure to ground-level ozone is expected to double worldwide (from 385,000 to nearly 800,000) between 2010 and 2050.

Compared to the year 2000, emission levels of sulfur dioxide (SO₂) are projected to be 90% higher and nitrogen oxides (NO_x) 50% higher in 2050. Moreover, scientific studies demonstrate the transport of key air pollutants from foreign countries to the including ozone, PM, mercury and persistent organic pollutants.¹

Air pollutants do not respect geographic or political boundaries; emissions in other

¹ *Task Force on Hemispheric Transport of Air Pollution (2010). Hemispheric Transport of Air Pollution 2010, Part A. Ozone and Particulate Matter. Geneva: United Nations Economic Commission for Europe, ECE/EB.AIR/100.. National Research Council (2010). Global Sources of Local Pollution: An Assessment of Long-Range Transport of Key Air Pollutants to and from the United States. Washington DC: National Academies Press.*

countries can, and do, have impacts in the United States or on the whole globe.

Harmful air pollutants emitted overseas are transported internationally and have important effects on U.S. environmental quality. The global transport of mercury, for example, means that our citizens can be exposed to mercury that can originate halfway around the globe. Even the components of urban smog and regional haze, such as tropospheric ozone and fine particles, can be transported between continents, adversely affecting air quality in the United States.²

Partnership for Clean Fuels and Vehicles

The EPA awards Section 103 grants to support the Partnership for Clean Fuels and Vehicles (PCFV). The agency is one of the founding partners of the PCFV, which was launched by the Bush Administration at the 2002 World Summit on Sustainable Development in Johannesburg, South Africa. The PCFV reduces air pollution from vehicles in developing and transitional countries by promoting the use of lead-free and low sulfur fuels and clean vehicles. Since 2002, the PCFV's Lead Campaign has contributed to more than 180 countries³ eliminating lead from their fuel supplies. Lead phase out fostered the use of catalytic converters, a technology invented in the United States. The market for catalytic converters and other air pollution control equipment has become a world market according to the association representing U.S. manufacturers, the Manufacturers of Emission Controls Association (MECA). MECA member companies currently account for approximately 65,000 jobs in the United States.

In recent years, the EPA's participation in the PCFV has focused on decreasing sulfur in vehicle fuels, which enables the use of advanced pollution control devices. The EPA, through the PCFV, is working with governments, particularly in Asia, including China, Indonesia and Vietnam, to share best practices in the United States, discuss various emission reduction strategies, and develop targets for emissions reductions. Pollution from vehicles in Asia endanger the health and well-being of millions of people in that region and, to some extent this pollution travels across the Pacific Ocean to negatively impact U.S. air quality.

Partnership for Clean Indoor Air

Another important air quality initiative launched at the 2002 World Summit on Sustainable Development and supported by the EPA's Section 103 grants is the public-private Partnership for Clean Indoor Air (PCIA). This initiative addresses the burning of solid fuels for household cooking and heating. Under both the Bush and Obama

² *National Research Council (2010). Global Sources of Local Pollution: An Assessment of Long-Range Transport of Key Air Pollutants to and from the United States. Washington DC: National Academies Press.*

³ See <http://www.unep.org/transport/PCFV/PDF/8GPMReportFF.pdf>

administrations, the EPA has grown the PCIA to include nearly 600 Partners working in 115 countries. The PCIA is now being integrated with the Foundation-led Global Alliance for Clean Cookstoves. The Department of State is now leading the U.S. effort, coordinating cookstove activities of other U.S. Government agencies and aligning those activities with the work of the Global Alliance.

Over half the world's population burns solid fuels for household cooking and heating. This practice has significant adverse health, social, economic and environmental effects, with women and children facing the greatest risks. Each year, more than 2 million people die prematurely from exposure to elevated levels of indoor air pollution, and the International Energy Agency projects that an additional 200 million people will use these fuels by 2030. The efforts of the EPA and other PCIA Partners directly advance U.S. security and economic interests.

Under the PCIA, the EPA's Section 103 grants focus on increasing the use of cleaner cooking technologies and fuels in developing countries, which reduce people's exposure to indoor air pollution. These grants provide support for research and development for cook stove design, performance, and quality assurance, and education and outreach activities.

The PCIA work, including grants, capacity-building efforts and coordination with the household energy sector, has yielded outstanding results. PCIA partners have reported that 9.3 million households have adopted cleaner cooking technologies and fuels, thereby improving the health and livelihood of 52.4 million people in developing countries.

Research Collaboration

The EPA's international grants for research awarded under Section 103 and other statutory authorities contain small amounts of funds for travel and research abroad, typically less than 2% of the total cost of a grant. The travel allows EPA-funded researchers to attend international meetings and/or work with scientists at foreign institutions. This furthers scientific collaboration through the discussion of research findings and solutions, constructive criticism, sharing of information, and direct access to expertise, substantially enhancing the quality of the EPA-supported research.

The collaboration also facilitates researchers' access to, and use of, data collected abroad, which may be available only through partnerships with foreign institutions. For example, international data set generation, access and use is particularly important for epidemiological studies. In those studies, research results are often extrapolated to several countries, including the United States, providing scientific evidence that can help inform policies to improve air quality in the United States.

Reducing Exposure to Mercury

The U.S. has taken important steps to reduce emissions and other releases of mercury into the environment. These actions will significantly reduce exposures to mercury for Americans, who can become exposed to mercury when it is deposited onto water and becomes methylmercury, a potent neurotoxicant that accumulates in aquatic food webs. Americans become exposed when they consume fish that is contaminated with methylmercury.

Where mercury deposition is highest in the U.S., domestic sources are the largest contributors. However, mercury in the atmosphere can be transported globally. In much of the US mercury from global sources dominates deposition. Furthermore, much of the marine fish that Americans consume comes from waters far from our shores. Therefore to fully protect Americans from the toxic effects of mercury contamination a global effort is required.

In light of the impacts of mercury within the United States, the EPA has identified reducing the use and emissions of mercury as a key priority. As a world leader in environmental monitoring and management, the EPA supports sound and transparent mercury monitoring. As part of the agency's overall strategy to prevent mercury releases to air, water and land, the EPA uses Section 103 of the Clean Air Act, in conjunction with other agency grant authorities, to provide funding to the United Nations Environmental Program (UNEP). This funding supports UNEP's activities to build capacity in other countries to reduce mercury use in products and manufacturing processes and to reduce mercury emissions to the atmosphere from a variety of sources.

Reducing Methane Emissions

Methane is over 20 times more effective in trapping heat in the atmosphere than CO₂ over a 100 year time frame.⁴ Methane emissions also contribute to the formation of ground-level ozone, an air pollutant that causes significant health problems in the United States and around the world.⁵

Methane lasts long enough in the atmosphere to become well-mixed, such that methane emission reductions achieved anywhere in the world impact global

⁴ *United States Environmental Protection Agency, Office of Atmospheric Programs, DRAFT: Global Anthropogenic non-CO₂ Greenhouse Gas Emissions: 1990-2030:* http://www.epa.gov/climatechange/economics/downloads/EPA_NonCO2_Projections_2011_draft.pdf

⁵ *West, J. Jason, Arlene M. Fiore, Larry W. Horowitz, and Denise L. Mauzerall, Global Health Benefits Of Mitigating Ozone Pollution With Methane Emission Controls (2006),* <http://www.pnas.org/content/103/11/3988.full>

atmospheric concentrations⁶. However, methane has a shorter atmospheric lifetime than CO₂, such that methane reductions achieved today can help stabilize climate in the near term whereas the benefits of CO₂ reductions take decades to be realized.

Through competitively awarded Section 103 grants under the Global Methane Initiative (GMI), the EPA has worked with international partners to reduce methane emissions. Originated as the Methane to Markets Partnership under the Bush Administration, the GMI is a public-private partnership that has grown to cover 41 countries, international financial institutions, and hundreds of private sector organizations.

The EPA estimates that GMI grants have directly provided over \$2.7 million in benefits to U.S. companies, universities and non-profit organizations through direct funding, subcontracts, or grant-funded purchases of equipment or consulting services. Further, these grants have created significant market opportunities for U.S. technologies, goods and services, especially technical equipment or supplies or technical consulting services.

To date, the United States has been the principal funder of the GMI, investing over \$33 million from the State Department, over \$25 million from the EPA, and over \$7 million in funding from other U.S. government agencies since 2004. In total, U.S. support has leveraged more than \$398 million in additional investment in methane-reducing projects around the globe from the private sector and development banks. U.S. GMI-supported projects have reduced emissions by more than 154 million metric tons carbon dioxide equivalent (CO₂e) cumulatively since 2005.⁷ The EPA estimates that by 2020, methane reductions of more than 1,500 million metric tons of CO₂ equivalent can be achieved at low cost; this is equal to the annual greenhouse gas emissions from over 260 million cars.⁸

Building Strong Environmental Institutions and Legal Structures

Countries need adequate governmental structures to enforce environmental protection and ensure a level playing field for U.S. companies. To that end, the EPA partners with other countries to develop and support the promotion of good governance, improve judicial and legal structures, and design regulatory systems necessary for effective environmental protection around the world. In some cases, the EPA works with the Department of State and the U.S. Agency for International Development to support the implementation of the U.S. government's Free Trade Agreements, including the Central America-Dominican Republic (CAFTA-DR) Free Trade Agreement and the U.S.-Jordan

⁶ Seinfeld J. H. and Pandis S. N. (1998) *Atmospheric Chemistry and Physics: From Air Pollution to Climate Change*, 1st edition, J. Wiley, New York (p.42)

⁷ *Global Methane Initiative, The U.S. Government's Global Methane Initiative Accomplishments (2012)*. 2011 report available at: http://www.epa.gov/globalmethane/pdf/2011-accomplish-report/usg_report_2011_full.pdf

⁸ *EPA, Global Mitigation of Non-CO2 Greenhouse Gases (2006)*, http://www.epa.gov/climatechange/economics/downloads/GM_ES.pdf

Free Trade Agreement.

As part of the implementation of Free Trade agreements, the EPA has a central role in developing and managing programs to build good environmental governance. These programs help protect human health and the environment, while allowing U.S. companies and communities to compete on an equal footing in the international marketplace. The EPA's international grants, awarded on a multi-media basis using Section 103 and other authorities, play a key role in assisting U.S. trading partners to develop appropriate environmental protection standards.

For example, through an EPA grant to the Battelle Institute, a U.S. non-profit research and development organization, the CAFTA-DR countries now have the capacity to monitor the air quality at a minimum, PM10 in their capitals. Two countries, El Salvador and Costa Rica, have acquired real time monitoring equipment for PM 2.5, finer particulate matter, and El Salvador is moving forward to develop the first national air quality index in the region.

Conclusion

The EPA believes that HR 4255 will cripple the agency's ability through grants to address harmful air pollutants that affect both the global and domestic environment. Air pollution from overseas sources represents a growing problem for public health globally and here in the United States. As administrations of both parties consistently have recognized over the past several decades, the EPA's Section 103 international grants play a significant role in improving the quality of the U.S. and world environment, providing business opportunities for U.S. companies and supporting U.S. foreign policy interests.