Climate Change Mitigation and Adaptation:

Avoiding the Unmanageable and Managing the Unavoidable

The most recent U.S. National Climate Assessment, published in May 2014, “concludes that the evidence of human-induced climate change continues to strengthen and the impacts are increasing.” The report describes at length the impacts we are experiencing now and those we can expect into the future, such as extended periods of unusual heat, heavier downpours, longer seasonal allergies, more frequent flooding of coastal roads, more expensive insurance, and a longer wildfire season. These impacts are widespread geographically and across economic sectors.

In light of this reality, the federal government, guided by the President’s Climate Action Plan and several Executive Orders, is taking
Antonia Giardina Spotlight

Please help us welcome the Office of Sustainable Energy and Environmental Programs’ (OSEEP) newest team member, Antonia Giardina. Prior to joining OSEEP, Ms. Giardina served as the Sustainability Program Manager at the U.S. Army Corps of Engineers (USACE). She was responsible for implementing the federal sustainability requirements within USACE’s internal operations and infrastructure, including administrative buildings, laboratories and civil works facilities. Antonia has a Bachelor’s degree in Environmental Biology from Colgate University and a Master’s degree in Sustainable Development and Conservation Biology from the University of Maryland. Antonia will lead the Department’s climate change adaptation and resilience program; manage our clean energy initiatives and energy performance contracting; and serve as the Chair of the green grants panel. Regarding her planned achievements while working for the Department, Antonia stated, “I hope to put the foundation in place for DOC to meet or exceed the President’s target of consuming 30% clean energy by the end of fiscal year 2025.” Antonia believes that the federal government has the responsibility to tax payers and the global community to use resources responsibly and as efficiently as possible. She states, “It is about taking waste out of the system, or rethinking the system all together, to save money and reduce the impact on our environment so that future generations have the opportunity to enjoy this planet as much as we do.” At home, Ms. Giardina incorporates sustainability into her personal life by planting native plants in her garden, improving her home’s energy efficiency, purchasing renewable energy, and buying environmentally friendly products. In her free time, Antonia likes to spend time with her family and travel.

Did You Know?

Environmental permits are required for any type of activity that has the potential to impact the environment. If you don’t know if your facility, project or operation has an existing permit, or might need one, start by contacting your local city or county government office. In addition, many local governments require special use permits and/or a business license prior to conducting any activity within their jurisdiction. The permit application, evaluation, and issuance process assures the public that the environment and human health will not be threatened or damaged. Since permits are issued to perform very specific functions, multiple agencies (state, federal, and local) may assist in the review leading to either approval or denial of the proposed activity. It is the facility’s manager responsibility to ensure that all necessary permits are obtained and are current prior to the permitted action taking place.

Check with your local city or county government to see what type of environmental permit your facility will need. Some examples of the most common types of permits for federal facility activities are listed below.

Air emissions: Title V of the Clean Air Act requires major sources of air pollutants to obtain and operate in compliance with an operating permit. Sources with these "title V permits" are required by the Act to certify compliance with the applicable requirements of their permits at least annually. The purpose of the Title V Program is to reduce air pollution and improve enforcement of the operating conditions imposed on sources of air pollution. To get more information about operating permits in your region you may visit: http://www.epa.gov/airquality/permits/whereyoulive.html.

Water emissions: If you discharge pollutants from a point source to a water source, in the United States, you may need a National Pollutant Discharge Elimination System (NPDES) permit. The NPDES General Permit Inventory search tool allows users to search for NPDES general permits by permit number, permit name, state, U.S Environmental Protection Agency (USEPA) Region, date issued, date expired, or permit category. Search results display basic permit information, as well as a link to electronic permit documents when available. For more information, visit: http://cfpub.epa.gov/npdes/permitissuance/genpermits.cfm.

Pesticide use: Operators need permit coverage for discharges from pesticide
The Green Store is a one-stop shop for Commerce employees within the 12 Operating Units located within the Herbert C. Hoover Building (HCHB) to find excess supplies and materials to meet their office and project needs. Within the Office of the Secretary (OS), Office of Facilities and Environmental Quality (OFEQ), Office of Sustainability Energy and Environmental Programs (OSEEP), the Green Store is an ongoing recycling project that alleviates the unnecessary disposal of excess office supplies. Employees are encouraged to donate their new or lightly used supplies and in return are available for pick up and reuse within the Department. Staffed and managed by part-time interns, sales and donations are recorded by bureau to keep track of cost savings throughout the year. As a result, data is collected and assessed to determine which office supplies are requested on a frequent basis. The following list contains the most requested items in the Green Store:

**Green Store’s Most Requested**
- Writing Utensils
- Writing Pads
- Staplers/Staples
- Sticky Pads
- Envelopes
- Binder/Paper Clips
- Computer Keyboards
- Folders
- Tabs/Dividers/Inserts
- Ink and Toner Catridges

These items are purchased and donated to the Green Store on a regular basis. With an increase in hours, Mondays and Wednesdays from 10:00am to 2:00pm, and part-time interns assigned to manage the inventory, the Green Store continues to thrive and surpass cost savings goals.

In addition to diverting HCHB’s excess office supplies from the landfill, the Green Store is a key element of each year’s America Recycles Day event. Through continuous support and donations, the Green Store will continue to be a success for the bureaus today in the future.

The Green Store just surpassed $400,000 in cost savings/avoidance.

(CPTrack Cont’d)

and understand the compliance criteria that must be met. With CPTrack, facility managers will be able to easily identify and track requirements for wastewater and stormwater permits; air permits; spill prevention, control, and countermeasure (SPCC) plans; underground storage tanks; treatment of drinking water; and generation, storage, and disposal of hazardous waste.

The assessment modules allows for generation of a compliance checklist associated with a facility’s operations. These checklists are used to proactively assess the status of environmental compliance at a facility. CERL designed CPTrack to easily record and track findings of environmental non-compliance identified during a facility assessment, to identify the root cause, and to generate a corrective action plan. The system allows the deficiency to be tracked all the way through to resolution.

A significant benefit of having a proactive environmental compliance program and a monitoring system in place is that it allows for identification and correction of findings of noncompliance before a regulatory inspection, thus avoiding a Notice of Violation (NOV) and/or monetary fines that detract from other critical operations of the organization. In addition, having a proactive approach often promotes good regulatory relationships and helps mitigate negative reactions during an inspection if a deficiency is found, thus decreasing the chance of a monetary fine.

CPTrack is now available to facilities for use to help the Department implement and sustain a proactive environmental compliance approach at all Commerce facilities. Hands-on and webinar training will be provided 19 November at the Department of Commerce Herbert C. Hoover Building.
(Climate Mitigation Cont’d)

action. The actions being taken fall into two broad categories—mitigation and adaptation. Mitigation efforts are aimed at reducing greenhouse gas emissions that contribute to further climate change; avoiding unmanageable climate impacts. Adaptation efforts are aimed at acknowledging a certain amount of climate change is inevitable, given past and current emissions rates, and finding ways to be resilient and minimize negative consequences; managing unavoidable climate impacts.

The Department of Commerce is working to reduce its greenhouse gas emissions by implementing energy and water efficiency projects in its buildings, exploring options for increasing renewable energy consumption, and shifting toward more fuel efficient vehicles. Between fiscal years 2008 and 2014 the Department reduced its greenhouse gas emissions by 15.4% making progress toward its 2025 reduction target of 25%. Every employee has a role to play in mitigation, such as turning off lights and equipment, and reporting leaky water fixtures to maintenance personnel.

On the adaptation front, in 2011, the Department published Department Administrative Order (DAO) 216-18, Climate Change Adaption Planning, and developed a Climate Change Adaptation Strategy that was last updated in June 2014. The Strategy describes why adaptation planning is important for the Department. For example, climate related disruptions to transportation infrastructure and supply chains have the potential to challenge the Department’s ability to promote U.S. exports and drive economic growth. The Department’s science and information mission will be even more important, providing critical scientific, economic, demographic data to communities grappling with the challenges of climate change. Climate change will also challenge the Department’s environmental stewardship mission to protect ocean and coastal species, habitat, and ecosystem resources. The Department must understand how its buildings and infrastructure might be vulnerable to climate change and extreme weather events, and make the necessary changes to those facilities according to mission criticality and acceptable levels of risk. The Climate Change Adaptation Strategy also describes actions Operating Units are taking to address these challenges. For example, the Economic Development Administration is developing internal guidance on how to factor climate resiliency into its grant-making investment decisions. In addition to critical climate and weather forecasting, NOAA is assessing the vulnerability of fish stocks and fishing communities, and the Office of the Secretary is assessing climate vulnerabilities across all Department owned and leased facilities.

The Office of the Secretary recently established the Climate Preparedness and Resilience Steering Committee to update the Department’s climate policy and strategy, track implementation, and report annual progress through the Department’s Strategic Sustainability Performance Plan as required by Executive Orders 13693, Planning for Federal Sustainability in the Next Decade, and 13653, Preparing the United States for the Impacts of Climate Change. The Steering Committee membership includes representatives from the Bureaus and relevant offices within the Office of the Secretary and will serve to improve awareness and coordination on climate adaptation topics. By addressing both mitigation and adaptation the Department is taking a comprehensive approach to climate change and is continuously improving and maturing these programs.

Did You Know? Cont’d

Hazardous waste: The Resource Conservation and Recovery Act (RCRA) hazardous waste permitting program helps ensure the safe treatment, storage, and disposal of hazardous wastes by establishing specific requirements that must be followed when managing those wastes. Permits for the treatment, storage, or disposal of hazardous wastes are issued by state governments or by USEPA Regional Offices. For more information, visit: http://www.epa.gov/epawaste/hazard/tsd/permit.

The USEPA, local, and state governments may mandate monetary penalties for permit violations. A proactive environmental compliance program with an emphasis on regular and frequent self-assessments is strongly recommended.

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