Additional FY 2020 Contributions to EPA's Portfolio of Evidence

Office of Air and Radiation (OAR)

Activity 1:

Title	Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2018
Lead National Program/Region	Office of Air and Radiation (OAR)
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.1: Improve Air Quality
Completion Date	April 2020

Purpose and brief description: EPA has prepared the Inventory of U.S. Greenhouse Gas Emissions and Sinks since the early 1990s. This annual report provides a comprehensive accounting of total greenhouse gas emissions from all man-made sources in the United States. The gases covered by the Inventory include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, sulfur hexafluoride, and nitrogen trifluoride. The Inventory also calculates carbon dioxide removal from the atmosphere by "sinks," e.g., through the uptake of carbon and storage in forests, vegetation, and soils. The national greenhouse gas inventory is submitted to the United Nations in accordance with the Framework Convention on Climate Change.

Brief list of results/conclusions/findings: In 2018, U.S. greenhouse gas emissions totaled 6,677 million metric tons of carbon dioxide equivalents, or 5,903 million metric tons of carbon dioxide equivalents after accounting for sequestration from the land sector. Emissions increased from 2017 to 2018 by 3.1 percent (after accounting for sequestration from the land sector). This increase was largely driven by an increase in emissions from fossil fuel combustion, which was a result of multiple factors, including more electricity use due to greater heating and cooling needs due to a colder winter and hotter summer in 2018 in comparison to 2017. Greenhouse gas emissions in 2018 (after accounting for sequestration from the land sector) were 10.2 percent below 2005 levels.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: An emissions inventory that identifies and quantifies a country's anthropogenic sources and sinks of greenhouse gases is essential for addressing climate change. This inventory adheres to both (1) a comprehensive and detailed set of methodologies for estimating sources and sinks of anthropogenic greenhouse gases, and (2) a common and consistent format that enables Parties to the United Nations Framework Convention on Climate Change (UNFCCC) to compare the relative contribution of different emission sources and greenhouse gases to climate change.

Link for findings*: https://www.epa.gov/ghgemissions/inventory-us-greenhouse-gas-emissions-and-sinks-1990-2018

Activity 2:

Title	2019 Power Sector Programs – Progress Report
Lead National Program/Region	OAR
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.1: Improve Air Quality
Completion Date	June 2020

Purpose and brief description: Under the Clean Air Act, EPA implements several regulations that affect power plants, including the Acid Rain Program (ARP), the Cross-State Air Pollution Rule (CSAPR) and the CSAPR Update, and the Mercury and Air Toxics Standards (MATS). These programs require fossil fuel-fired electric generating units to reduce emissions of sulfur dioxide (SO2), nitrogen oxides (NOX), and hazardous air pollutants including mercury (Hg) to protect human health and the environment. This reporting year marks the fifth year of CSAPR implementation, the third year of the CSAPR Update implementation, the twenty-fourth year of the ARP, and the third year of MATS implementation in which the majority of sources were required to report emissions for the full year. This report summarizes annual progress through 2019, highlighting data that EPA systematically collects on emissions for all four programs and on compliance for the ARP and CSAPR. Transparency and data availability are a hallmark of these programs, and a cornerstone of their success.

Brief list of results/conclusions/findings: The ARP, CSAPR, CSAPR Update, and MATS have delivered substantial reductions in power sector emissions of SO2, NOX, and hazardous air pollutants, along with significant improvements in air quality and the environment. Program highlights include, but are not limited to:

- In 2019, sources in both the CSAPR SO2 annual program and the ARP together reduced SO2 emissions by 14.8 million tons (94 percent) from 1990 levels.
- In 2019, sources in both the CSAPR NOX annual program and the ARP together emitted 877 thousand tons, a reduction of 5.5 million tons (86 percent reduction) from 1990 levels.
- Compared to 2010, units covered under MATS in 2019 emitted 26 fewer tons of mercury (89% reduction).

In addition to the demonstrated reductions achieved by the power sector emission control programs described in this report, SO2, NOX, and hazardous air pollutant emissions have declined steadily in recent years due to a variety of power industry trends that are expected to continue.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The ARP, CSAPR and the CSAPR Update are implemented through cap and trade programs designed to reduce emissions of SO2 and NOX from power plants. Established under Title IV of the 1990 Clean Air Act Amendments, the ARP was a landmark nationwide cap and trade program, with a goal of reducing the emissions that cause acid rain. The success of the program in achieving significant emission reductions in a cost-effective manner led to the application of the market-based cap and trade

tool for other regional environmental problems, namely interstate air pollution transport, or pollution from upwind emission sources that impacts air quality in downwind areas. MATS set limits on emissions of hazardous air pollutants from power plants. EPA published the final standards in February 2012, and the compliance requirements generally went into effect in April 2015, with extensions for some plants until April 2016 and a small number until April 2017. As such, 2019 is the third full year for which most sources covered by MATS have reported emissions data to EPA.

Exposure to mercury and other hazardous air pollutants can increase chances of cancer and immune system damage, along with neurological, reproductive, developmental, respiratory, and other health problems. NOX emissions contribute to the formation of ground-level ozone and fine particle pollution, which cause a variety of adverse human health effects, while SO2 emissions are linked with a number of adverse effects to human health and ecosystems. These adverse effects underline the continued need for pollution reduction under the ARP, CSAPR, CSAPR Update and MATS. These reports are critical for monitoring these programs to ensure they are continuing to deliver substantial environmental and human health benefits.

Link for findings*: https://www3.epa.gov/airmarkets/progress/reports/pdfs/2019_report.pdf

Activity 3:

Title	Our Nation's Air: Status and Trends Through 2019
Lead National Program/Region	OAR
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.1: Improve Air Quality
Completion Date	July 2020

Purpose and brief description: EPA is committed to protecting public health and the environment by improving air quality and reducing air pollution. In this review and annual report, EPA presents the trends in the nation's air quality and summarizes the detailed information found at EPA's Air Trends website.

Brief list of results/conclusions/findings: Nationally, concentrations of the criteria air pollutants dropped significantly since 1970. Between 1970 and 2019, the combined emissions of the six common pollutants (particulate matter (PM2.5 and PM10), sulfur dioxide (SO2), nitrogen oxides (NOx), volatile organic compounds (VOCs), carbon monoxide (CO) and lead (Pb)) dropped by 77%. This progress occurred while the U.S. economy continued to grow, Americans drove more miles, and population and energy use increased.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: Annual emissions estimates are used as one indicator of the effectiveness of the Air Program. EPA and states track direct emissions of air pollutants and emissions that contribute to the formation of key pollutants, also known as precursor emissions. Emissions data are compiled from many

different organizations, including industry and state, tribal, and local agencies. Understanding emission sources helps EPA and states control air pollution.

Link for findings*: https://gispub.epa.gov/air/trendsreport/2020/#home

Activity 4:

Title	Title V Permitting Program Reviews
Lead National Program/Region	OAR
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.1: Improve Air Quality
Completion Date	Throughout FY 2020

Purpose and brief description: EPA periodically reviews state and local permitting programs, including fees, under Title V of the Clean Air Act as part of its responsibility to oversee delegated and approved air permitting programs. In general, the purpose of these program reviews is to identify good practices, document areas needing improvement, and learn how EPA can help the permitting agencies improve their performance. Permits issued under Title V include pollution control requirements from federal or state regulations that apply to a source. The permits are legally enforceable documents designed to improve compliance by clarifying what facilities (sources) must do to control air pollution.

Brief list of results/conclusions/findings: The purpose of the Title V program review is to identify good practices implemented by the state/local agency, areas needing improvement within the state/local program, and ways in which EPA can improve its own oversight role. EPA Regional Offices report on Title V program reviews on their respective websites. For example, the Title V program review conducted at one air agency identified staffing as an area of improvement. The air agency assessed is under a hiring freeze due to the COVID-19 pandemic and associated budget concerns. Although Title V activities are self-funded, permit writers conduct both Title V and non-Title V work and are subject to state budget constraints. The review also noted that many experienced staff were hired at the start of the program in the 1990s and are eligible to retire. This is expected to increase the staff vacancy rate and the report noted the air agency has not developed a robust succession plan. The air agency will complete a workload assessment to calculate the necessary staffing to sufficiently complete estimated annual title V permit workload and begin reducing their title V permit backlog.

As a result of another review, an air agency proposes to revise its statement of basis for each permit so that it explains how the proposed monitoring strategy will assure compliance with emission limits. This improved statement of basis, that discusses the decision-making that went into the development of the Title V permit, will provide the permitting authority, the public, and U.S. EPA a record of the applicability and technical issues in the permit. Additional Title V Operating Permit program information and reviews are available at: https://www.epa.gov/title-v-operating-permits/epa-oversight-operating-permits-program

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The reviews assess the overall effectiveness of the planning, permitting, monitoring and compliance, and enforcement programs to identify good practices implemented by the state/tribal agency, areas needing improvement within the state/tribal program, and ways in which EPA can improve oversight.

Link for findings*: https://www.epa.gov/title-v-operating-permits/epa-oversight-operating-permits-program

Activity 5:

Title	EPA Needs to Improve Oversight of How States Implement Air Emissions Regulations for Municipal Solid Waste Landfills
Lead National Program/Region	Office of Inspector General (OIG); OAR
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.1: Improve Air Quality
Completion Date	July 2020

Purpose and brief description: OIG conducted this audit to determine whether active landfills are operating under the appropriate air quality permit.

Brief list of results/conclusions/findings: EPA can more thoroughly review state plans and related annual progress reports to better assess whether states effectively implement Clean Air Act regulations for existing Municipal Solid Waste (MSW) landfills. When state plans are not effectively implemented, large MSW landfills that require but do not have Title V permits can go undetected, and their non-methane organic compound (NMOC) emissions can go unreported. Without obtaining a Title V permit and submitting NMOC emission reports, these landfills could emit excess pollutants for years, including those that contribute to ground-level ozone and fine particulate matter that are harmful to human health. A lack of emissions controls is particularly important in areas where ozone levels exceed the national air quality standards, since these controls could help bring those areas into compliance. As EPA and the states implement the revised 2016 Clean Air Act MSW landfill regulations, EPA has an opportunity to update guidance to clarify regulatory requirements, verify that state plans are adequate, and increase state compliance with the annual progress reporting requirement. These actions would help achieve more effective state implementation of these regulations.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OAR concurred with OIG's recommendations and is responsible for addressing OIG Recommendations 4, 5, and 6, which is to:

- Develop and implement a process to periodically review municipal solid waste landfill (MSWL) design capacity information and title V permit lists to identify MSWLs with design capacities over the applicable threshold that have not applied for a title V permit.
- Update guidance to clarify the requirements for submitting an initial design capacity report; and
- Develop and implement a process to confirm that state plans approved for delegation of the 2016 MSWL EG contain all required program elements and provisions for submitting annual progress reports.

(Region 4, Region 6 and OECA were responsible for addressing OIG's other recommendations, 1-3 and 7)

Link for findings_:_ https://www.epa.gov/office-inspector-general/report-epa-needs-improve-oversight-how-states-implement-air-emissions

Activity 6:

Title	EPA's Processing Times for New Source Air Permits in Indian Country Have Improved, but Many Still Exceed Regulatory Time Frames
Lead National Program/Region	OIG; OAR
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.1: Improve Air Quality
Completion Date	April 2020

Purpose and brief description: OIG conducted this audit to determine EPA's progress in implementing a Clean Air Act preconstruction permitting program called New Source Review (NSR) for new sources of emissions and modifications to existing sources of emissions in Indian Country. Specifically, OIG sought to determine the number of NSR permit applications that have been received and processed, the number of NSR applications that are pending approval and reasons for any delays, and the procedures or systems in place for identifying sources that are potentially subject to NSR permit requirements.

Brief list of results/conclusions/findings: While EPA has reduced the amount of time it takes to issue synthetic minor-source and site-specific-minor-source permits in Indian Country, the average processing time still exceeds the regulatory time frames. EPA has identified actions that it can take to improve permitting efficiencies, but the Agency still needs to fully implement some of these actions. EPA should implement a tracking system that is accessible to both EPA staff and permit applicants, as well as a strategy to improve the application process and permitting timeliness for tribal-NSR permits, taking into consideration the findings and recommendations from the Agency's previous Lean efforts. Improved processing times will help provide economic certainty for both industry and tribal communities.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The Agency agreed with OIG's six recommendations to:

- Implement a system that is accessible to both EPA and the applicants to track the processing of all tribal-New-Source-Review permits and key permit dates, including application received, application completed, draft permit issued, public comment period (if applicable), and final permit issuance;
- Establish and implement an oversight process to verify that the regions update the tribal-New-Source-Review permit tracking system on a periodic basis with the correct and required information;
- Develop and implement a strategy to improve the application process and permitting timeliness for tribal-New-Source-Review permits, taking into consideration the findings and recommendations from the Lean event;
- Provide guidance to the regions on how to accurately determine and document the application completion date that should be used for tracking the tribal-New-Source-Review permitting process and assessing timeliness;
- Develop and implement a plan, in consultation with the Office of Enforcement and Compliance Assurance and EPA's regions, to periodically coordinate with tribes to identify facilities that are operating in Indian Country without the required tribal-New-Source-Review permit; and
- Develop and implement a plan, in consultation with the Office of Enforcement and Compliance Assurance and EPA's regions, to periodically conduct outreach to industry groups to educate them on the tribal-New-Source-Review permit requirements for facilities that are constructed or modified in Indian Country.

Link for findings*: https://www.epa.gov/office-inspector-general/report-epas-processing-times-new-source-air-permits-indian-country-have

Activity 7:

Title	Management Alert: Prompt Action Needed to Inform Residents Living Near Ethylene Oxide Emitting Facilities About Health Concerns and Actions to Address Those Concerns
Lead National Program/Region	OIG; OAR
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.1: Improve Air Quality
Completion Date	March 2020

Purpose and brief description: While conducting the audit of EPA's actions to address air toxics emissions through its residual risk and technology review program, the OIG identified an urgent matter to report to the Agency. This matter involves the communication of EPA's current assessment of health risks to the public from exposure to ethylene oxide air emissions.

Brief list of results/conclusions/findings: EPA and state agencies have conducted a variety of outreach efforts to communicate health concerns associated with ethylene oxide emissions. EPA or state agencies have held public meetings in communities near nine ethylene oxide emitting facilities to inform the

public about ethylene oxide emissions in their communities. However, public meetings or other direct outreach efforts have not been afforded to residents living near 16 of the high-priority ethylene oxide emitting facilities. Although Regions 2 and 3 have plans to work with states and one territory to communicate with residents living near the high-priority facilities in those respective regions, there are still communities around 11 high-priority facilities where EPA has no plans for direct outreach with residents about health risks from ethylene oxide emissions. While OIG recognizes that state agency personnel can play a lead role in these meetings, EPA's participation is important for two reasons:

- To provide a consistent message;
- To fulfill EPA's critical leadership role in developing any future regulatory standards for ethylene oxide-emitting facilities under the Agency's two-pronged approach to address ethylene oxide emissions.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA did not agree with the OIG's recommendations but did agree to improve, as necessary, and continue to implement ongoing efforts to conduct additional, more refined investigation of risks in all high-risk areas. Based on this work, EPA will support state/territory-led efforts to communicate risk information to residents in all communities near ethylene oxide-emitting facilities in high priority areas. Following further discussion, EPA revised the Agency's proposed corrective action plan to ensure that it reflects more punctual and interactive (i.e., two-way) risk communication with affected communities. EPA intends to explore a wide variety of communication tools (including Web content, virtual webinars, and virtual workshops), recognizing that the appropriate first step is always to talk with local government officials and community leaders to determine what form of outreach will be most effective and most welcome. In addition, EPA will consider current restrictions on in-person engagement due to COVID-19. For this purpose, EPA will post quarterly status reports on these additional, more refined assessments and communications to the Agency's/regions' Ethylene Oxide website(s) beginning in November 2020 and plan to complete for all locations by May 31, 2021. Each status report will provide a summary of the outreach completed and the outreach planned for each area, along with relevant milestones and dates.

Link for findings*: https://www.epa.gov/office-inspector-general/report-management-alert-prompt-action-needed-inform-residents-living-near

Office of Chemical Safety and Pollution Prevention (OCSPP)

Activity 1:

Title or Topic of Study/Tool/Project	FY 2020 Biennial User Fee Lead-Based Paint Fees
Lead National Program/Region	Office of the Controller (OC) / Office of Chemical Safety and Pollution Prevention (OCSPP)
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.4: Ensure Safety of Chemicals in the Marketplace

Completion Date	September 2020

Purpose and brief description: The Toxic Substances Control Act, Section 402, U.S.C. 15 § 2682, authorizes the U.S. Environmental Protection Agency to collect user fees to cover the cost of administering and enforcing the Lead-Based Paint Risk Reduction Program's Training and Certification activities. The fees are required to be established at such level, as necessary, to cover the cost of processing applications, enforcing program requirements, and administrative activities. OC conducts Biennial User Fee Reviews to determine if fee levels and resulting collections are meeting that requirement. As part of those reviews, OC program offices compile and assess data from Agency financial systems to determine the annual costs (FTE and dollars) of fee-related work Agency-wide, including direct program costs and Agency Indirect Costs, and compare those costs to annual fee collections. The results of these reviews are used to determine if fee levels need to be adjusted through EPA's Action Development Process, and by how much. The reviews also inform recommendations for improvements in Agency and program user fee-related cost accounting practices. OC's FY 2020 User Fee Review covered costs and revenues for FY 2018 and FY 2019.

Brief list of results/conclusions/findings: The FY 2020 User Fee Review focused primarily on the issue of cost accounting practices because Lead Program User Fee collections vary considerably over a five-year cycle such that no single review can provide sufficient information to assess the appropriateness of fee levels and collections relative to costs. With respect to cost accounting practices, the review found differences between Office of the Chief Financial Officer (OCFO)'s and OCSPP's cost assessments. For FY 2018, OCFO's direct costs were under-reported by approximately $1.168M, while the FY 2019 the number was under-reported by approximately $602K. OCSPP attributes these differences to insufficient use of fee-related work codes in EPA's Compass Financials System. OCSPP calculated an additional $300K in indirect labor and other costs for both fiscal years (OCFO data did not include this calculation). OCSPP took the additional step of requesting and receiving manual FTE estimates from regional offices for fee-related work, which for some regions differed from the FTE numbers reported. After making their own adjustments to the data, OCFO concluded that in FY 2018 and FY 2019 total fee collections were more than enough to cover total program costs. Nonetheless, OCFO recommended improvements in resource and FTE reporting.

To increase the Agency's ability to accurately capture the reasonable cost of the Lead-Based Paint Fee Program's activities, OCFO recommends the following actions be implemented:

- Collaborate with OCFO to establish work codes to capture the actual hours worked of the program's regional offices direct labor cost and Federal Lead Paint Program (FLPP) system's labor costs in the Agency's time and attendance system.
- Ensure project codes are included on the program's funding documents costs (i.e., travel, contracts, expenses, grants).
- Work with the Office of Enforcement and Compliance Assurance (OECA) to ensure the activities to enforce the Lead-Based Paint Program are captured and recovered in the fees.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OCFO's conclusion that fee collections are sufficient to cover estimated total program costs is limited to the fiscal years addressed in the FY 2020 Review. OCSPP believes a five-year analysis is required in order to determine if fee levels are appropriate. OCSPP agrees with OCFO's

reporting recommendations. The Agency will work to implement the recommendations to ensure all costs of the Lead-Based Paint Program's Certification and Training activities are being captured.

Link for findings: OCFO generally does not post the results of each user fee program to EPA's website. However, OMB requires agencies to discuss the results of the biennial user fee reviews in the Agency Financial Report. A copy of EPA's FY 2020 AFR is on this website: https://www.epa.gov/planandbudget.

Activity 2:

Title or Topic of Study/Tool/Project	OIG Audit – EPA's Safer Choice Program Would Benefit from Formal Goals and Additional Oversight
Lead National Program/Region	OIG; OCSPP
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.4: Ensure Safety of Chemicals in the Marketplace
Completion Date	June 2020

Purpose and brief description: EPA's Office of Inspector General (OIG) conducted this audit to determine whether the Safer Choice program effectively meets its goals and whether the program achieves quality standards through its product qualification, renewal, and required audit processes.

Brief list of results/conclusions/findings: EPA's Safer Choice program has general controls in place for the required Safer Choice audit process. EPA reviews audit summaries and corrective actions provided by third-party profilers (TPPs). The OIG found that the Agency does not routinely review all supporting documentation, however, and instead relies on TPPs to review and retain these documents. Additionally, the Safer Choice program does not have procedures in place to conduct any formal performance reviews of TPPs or oversight reviews of TPP partner audits. Without periodic audit oversight, including full reviews of supporting documents and formal performance reviews of TPPs, OIG found that EPA risks approving products that do not comply with the Safer Choice Standard.

OIG recommended that OCSPP develop and publish adequate Safer Choice program goals and performance measures, establish and implement procedures for formal audit oversight of TPPs, amend its memorandums of understanding with TPPs to require performance reviews conducted by EPA, and collect and document TPP audit supporting information.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: Proposed/planned corrective actions accepted by OIG:

- For both the Safer Choice and TRI audits, the Agency concurred with OIG recommendations/findings.
- EPA agreed to annually conduct oversight reviews of audits conducted by TPPs, including physical oversight of those audits. EPA will conduct one on-site oversight audit for each TPP each year and will conduct one oversight desk audit for each TPP each year.
- To improve clarity, EPA will amend TPP Memorandums of Understanding to indicate that EPA will conduct performance reviews for each TPP.

- EPA will incorporate a checklist into the program's data system, the Safer Choice Community, that TPPs will include with each audit summary, confirming that the TPP has collected and reviewed all the audit documentation required by the Safer Choice standard. This information will continue to be available to EPA upon request.

 Link for findings*: https://www.epa.gov/office-inspector-general/report-epas-safer-choice-program-would-benefit-formal-goals-and-additionall

Activity 3:

Title or Topic of Study/Tool/Project	OIG Audit Report: Data used for Annual Toxics Release Inventory Program are 99% complete but EPA Could Improve Certain Data Controls
Lead National Program/Region	OIG; OCSPP
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.4: Ensure Safety of Chemicals in the Marketplace
Completion Date	September 2020

Purpose and brief description: The Office of Inspector General (OIG) conducted this audit to determine the extent to which late reporting of Toxics Release Inventory (TRI) data impacts the annual TRI National Analysis.

Brief list of results/conclusions/findings: Communities located near the facilities that reported TRI data late may not have access to current TRI data to make informed decisions. To improve data collection, EPA prompts the facilities that miss the July 1 deadline to nonetheless comply with TRI reporting requirements. OIG found that since this good practice is not documented as a standard operating procedure, EPA runs the risk of not replicating this practice yearly.

OIG also identified control weaknesses concerning the reporting of the final disposition of chemicals that facilities transferred to publicly owned treatment works (POTWs). Reporting facilities can edit the default "POTW distribution percentages" that EPA uses to estimate the final disposition of chemical quantities transferred to a POTW. EPA, however, cannot verify the validity of the data since the reporting facility is not required to provide evidence to the Agency supporting the edit. OIG found that current practices do not provide adequate controls to ensure the validity and accuracy of TRI data for chemicals transferred to POTWs, especially since facilities could alter the distribution percentages to report fewer chemicals released into the environment. Facilities' edits of certain TRI transfer data from 2014 through 2017 reduced the net pounds reported released by 3,354,235 pounds (19 percent).

OIG recommended that EPA continue to follow up with facilities that have not reported their data before the freeze date, analyze the impact of late-reported data, and establish controls over POTW distribution percentage edits to validate the accuracy of the data.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: Proposed/planned corrective actions (to be completed 2020-2021):

- For both the Safer Choice and TRI audits, the Agency concurred with OIG recommendations/findings.
- EPA agreed that the TRI Program will formalize reminder and notification practices by establishing an internal Standard Operating Procedure that describes these processes to minimize the effect any late reporting may have on the TRI National Analysis.
- In the publication of the TRI National Analysis for Reporting Year 2019, EPA will include language that summarizes how late reports and revised reports have changed the dataset that was used to develop the previous year's National Analysis.
- EPA agreed to provide the POTW distribution percentages in the TRI data presentation tools.
- Going forward, EPA will review submitted data to look for situations where a facility reported a transfer to a POTW such that the transfer reported provides a markedly different outcome than the default distribution percentages would have produced. EPA will also review situations where such reporting differs from transfers reported by similarly situated facilities.
- EPA TRI Program will provide updated default POTW percentages for certain chemicals (e.g., nonylphenol ethoxylates) and develop a standard operating procedure to describe how these default distribution percentages are determined.

Link for findings*: https://www.epa.gov/office-inspector-general/report-data-used-annual-toxics-release-inventory-national-analysis-are-99

Activity 4:

Title or Topic of Study/Tool/Project	OIG Audit Report; EPA Toxic Substances Control Act Consent Orders Need Better Communication
Lead National Program/Region	OIG; OCSPP
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.4: Ensure Safety of Chemicals in the Marketplace
Completion Date	May 2020

Purpose and brief description: EPA's Office of Inspector General (OIG) conducted this evaluation to determine what actions EPA took to verify compliance with the requirements of the 2009 Toxic Substances Control Act (TSCA) Premanufacture Notice Consent Order with DuPont (responsibilities transferred to The Chemours Company in 2015).

Brief list of results/conclusions/findings: OIG found insufficient communication and coordination between the two EPA offices, OCSPP and the Office of Enforcement and Compliance Assurance (OECA), the offices responsible for developing and enforcing the consent order requirements, respectively.

Recommendations:
- Implement a process that ensures OECA, the office responsible for the compliance, monitoring and enforcement activities, reviews and approves the terms and conditions of TSCA Section 5(e) Orders terms developed by OCSPP.
- Implement a process to provide final TSCA Section 5(e) Orders to Regional Offices (ROs) with facilities subject to the terms and conditions of the Consent Orders in an appropriate timeframe, and verify that those EPA ROs acknowledge receipt of the final TSCA Section 5(e) Consent Orders.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures:

- The Agency concurred with OIG recommendations/findings.
- This activity is complete. With specific regard to the searchable database, an interim search tool/process has been put in place while the permanent solution is completed.
- OECA's Waste and Chemical Enforcement Division (OECA/WCED) and the Office of Pollution Prevention and Toxics/Chemical Control Division (OPPT/CCD) have developed a TSCA Section 5(e) Order Boilerplate that clarifies and strengthens the provisions of the Order for New Chemical Substances. This was completed in June 2020.
- OPPT/CCD and OECA/WCED established and implemented a Standard Operating Procedure (SOP) that ensures that OECA/WCED, the office responsible for compliance monitoring and enforcement activities, reviews and approves the terms and conditions of TSCA Section 5(e) Orders developed by OPPT/CCD. This was completed in June 2020.
- To enable Regional Offices to focus compliance monitoring and enforcement activities required by OECA's National Program Guidance (NPG) for FY2020-2021 and future NPGs, the Agency will develop a searchable database of TSCA 5(e) orders. OCSPP will complete the search tool by December 31, 2020.

Link for findings*: https://www.epa.gov/office-inspector-general/report-epa-toxic-substances-control-act-consent-orders-need-better

Activity 5:

Title or Topic of Study/Tool/Project	OIG Audit Report: Lack of Planning Risks EPA's Ability to Meet Toxic Substances Control Act (TSCA) Deadlines
Lead National Program/Region	OIG; OCSPP
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.4: Ensure Safety of Chemicals in the Marketplace
Completion Date	August 2020

Purpose and brief description: EPA's Office of Inspector General (OIG) conducted this audit to determine whether EPA met the deadlines already imposed by TSCA as amended by the Frank R. Lautenberg Chemical Safety for the 21st Century Act in 2016, and has the staff, resources, and management controls in place to meet future statutory deadlines.

Brief list of results/conclusions/findings: OIG found that "EPA's program offices have not conducted a systematic workload analysis or identified workforce needs for budget justification purposes since 1987. OIG found this to be true for the Office of Chemical Safety and Pollution Prevention's Office of Pollution Prevention and Toxics (OPPT), which is responsible for implementing the TSCA amendments. Though the OCSPP expects to hire more staff members to implement the TSCA amendments in fiscal year 2020, the Office lacks a workforce-and-workload analysis to successfully implement and meet the 2016 TSCA

deadlines. Additionally, EPA's annual plans for risk evaluations were neither done in a timely manner nor met the statutory requirements to identify the resources needed to initiate or complete the risk evaluations for the year."

OIG recommended that OCSPP (1) publish the annual existing chemical plan including the anticipated implementation efforts and required resources, (2) conduct a workforce analysis to assess the OPPT's capability to implement TSCA, and (3) specify what skill gaps must be filled in fiscal year 2021 to meet the TSCA requirements.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: Pending corrective actions:

- The Agency concurred with OIG recommendations/findings.
- EPA will publish the 2021 Annual Existing Chemical Risk Evaluation Plan consistent with the statutory requirements. Target completion date: January 31, 2021.
- EPA/OCSPP conducted a workforce analysis specifically focused on OPPT's capability to implement the requirements of TSCA.
- OCSPP will complete a skills gap analysis and will utilize its hiring plan to fill in the remaining identified gaps. Target completion date: March 31, 2021.

Link for findings*: https://www.epa.gov/office-inspector-general/report-lack-planning-risks-epas-ability-meet-toxic-substances-control-act

Activity 6:

Title or Topic of Study/Tool/Project	FY 2020 Biennial User Fees for the Administration of the Toxic Substances Control Act (TSCA)
Lead National Program/Region	OC; OCSPP
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.4: Ensure Safety of Chemicals in the Marketplace
Completion Date	September 2020

Purpose and brief description: The Toxic Substances Control Act, Section 26(b), U.S.C. 15 § 2625(b), authorizes EPA to collect user fees to cover 25 percent of the costs of administering Sections 4, 5, 6 and 14 of the Act. EPA conducts Biennial User Fee Reviews to determine if fee levels and resulting collections are meeting that requirement. As part of those reviews, EPA compiles and assesses data from Agency financial systems to determine the annual costs (FTE and dollars) of fee-related work Agency-wide, including direct program costs and Agency Indirect Costs, and compares those costs to annual fee collections. The results of these reviews are used to determine if fee levels need to be adjusted. The reviews also inform recommendations for improvements in Agency and program user fee-related cost accounting practices. The FY 2020 User Fee Review covered costs and revenues for FY 2019, the first

year during which TSCA user fees were collected following promulgation of the TSCA User Fees Rule in September 2018[1].

Brief list of results/conclusions/findings: The FY 2020 Biennial User Fee review determined that not enough information was available to determine if EPA was collecting an appropriate amount of fees. The Agency indicated that this assessment would not be able to be made until three years of data are available. TSCA User Fee-related costs and revenues data for FY 2019 were as follows:

- Implementation costs were approximately $87M, including Agency Indirect Costs.
- Fee collections were approximately $3M.

TSCA User Fee collections vary considerably over a three-year cycle such that no single review can provide sufficient information to assess the appropriateness of fee levels and collections relative to costs. In addition, the fee-related workload increased in FY 2020 and will further increase in FY 2021:

- Ten EPA-Initiated Risk Evaluations were underway in FY 2019; 20 more were initiated in FY 2020 while the first ten were still being completed.[2]
- Two Manufacturer-Requested Risk Evaluations were initiated in FY 2020, with at least one more being initiated in FY 2021.[3]
- One Section 6 Risk Management Action (the PBTs Rule[4]) was in development during FY 2019. Many more are being initiated in FY 2020 and FY 2021 in response to the findings of the first ten EPA-Initiated Risk Evaluations.[5]
- No Section 4 Test Orders were in development during FY 2019. Ten to 20 are being developed during FY 2020 and FY 2021.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: As required by law, EPA will assess and readjust, if necessary, the fees every three years to ensure compliance with the 25 percent statutory cap on fee collections relative to the full cost of EPA's implementation of TSCA Sections 4, 5, 6 and 14[6]. Accordingly, the next adjustment of fee rates will occur in September/October 2021 based largely on cost and collections information developed for FY 2019 and FY 2020. (EPA needs to publish the proposed rule well before FY 2021 annual data will be available.) The proposed rule is scheduled to be published in the first quarter of FY 2021. In addition to Biennial User Fee Reviews, TSCA requires that EPA's Office of Inspector General (OIG) conduct annual audits of the Agency's TSCA User Fees financial statements, to include:

- An analysis of the fees collected and amounts disbursed;

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[1] https://www.epa.gov/tsca-fees/fees-administration-toxic-substances-control-act#:~:text=The%202016%20amendments%20to%20the,a%20fee%20structure%20by%20rule.
[2] https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-evaluations-existing-chemicals-under-tsca
[3] https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/overview-manufacturer-requested-risk-evaluations
[4] https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/persistent-bioaccumulative-and-toxic-pbt-chemicals-under#:~:text=As%20required%20under%20the%20Toxic,bioaccumulative%20and%20toxic%20(PBT)
[5] https://www.epa.gov/assessing-and-managing-chemicals-under-tsca/risk-management-existing-chemicals-under-tsca
[6] https://www.epa.gov/tsca-fees

- The reasonableness of the fees in place as of the date of the audit to meet current and projected costs of administering the provisions of the law; and
- The number of requests for a risk evaluation made by manufacturers.

Accordingly, for future fee review cycles EPA will rely on both the Biennial User Fee Reviews and the OIG annual audits and consider three years of data in the assessment of whether the fees should be adjusted.

Link for findings: The Agency generally does not post the results of each user fee program to the EPA website. However, OMB requires agencies to discuss the results of the biennial user fee reviews in their Agency Financial Reports (AFR). A copy of EPA's FY 2020 AFR is on this website: https://www.epa.gov/planandbudget.

Office of the Chief Financial Officer (OCFO)

Activity 1:

Title	Employee-Debt Waiver Requests
Lead National Program/Region	Office of the Chief Financial Officer (OCFO), Office of Inspector General (OIG)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	August 2020

Purpose and brief description: EPA is committed to operating efficiently and effectively. In this review and annual report, EPA presents a strategy that shows that the Agency is properly forgiving debts owed by its employees through its waiver process and targeting activities that are resulting in salary overpayments.

Brief list of results/conclusions/findings: Office of the Chief Financial Officer improperly made decisions on 15 employee debt waiver requests totaling $53,539. As set forth in 5 U.S.C. § 5584, erroneous overpayments for salary, travel, transportation, or relocation expenses or allowances to employees may be waived if it "would be against equity and good conscience and not in the best interests of the United States." The Agency claims officer—who is located in the Office of General Counsel, (not in OCFO) has the authority up to $100,000 to waive employee debts for erroneous payments of pay and other allowances.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The Agency does not agree with the OIG's findings. OCFO compromised debt for 15 employees who requested a debt waiver. The OCFO has compromise authority for debt up to 20K but does not have waiver authority. Waiver authority resides with Agency Claims Officer. Corrective actions accomplished include (1) updating policies and procedures to require employee-debt waiver requests be submitted to the Agency claims officer for review; and (2) updating policies and procedures to state that EPA will process debt compromise requests in compliance with 31 U.S.C. § 3711 and Resource Management Directive System 2540-9-P2, as well as will maintain required supporting documentation. Completion of these actions addressed the issue by strengthening policies to distinguish between the

process for debt compromise versus debt waiver, Resulting in 1) a more effective debt process for employees that is in accordance with applicable law and policy and 2) compliance with Agency procedures for employee debt waiver requests and the processing of debt compromises.

Link for findings*: https://www.epa.gov/sites/production/files/2020-06/documents/_epaoig_20200615-20-p-0194_glance.pdf

Activity 2:

Title	System Life Cycle Management and Cost Analysis
Lead National Program/Region	Office of the Chief Financial Officer (OCFO), Office of Inspector General (OIG)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	April 2020

Purpose and brief description: EPA is committed to operating efficiently and effectively. In this review and annual report, EPA presents a strategy that shows that the Agency is taking the necessary steps to analyze current and future system life cycles and consider shared service options prior to the awarding of contracts.

Brief list of results/conclusions/findings: OCFO did not perform a required cost analysis or consider alternative options before awarding contracts to upgrade PeoplePlus to the 9.2 version. Because OCFO did not conduct four of the five reviews required by EPA's Chief Information Officer Classification No. 2121-P-03.0, System Life Cycle Management Procedure, which provides management control and direction over decision-making, it cannot confirm that the PeoplePlus upgrade was the best use of funds. An opportunity to reduce costs through its shared service provider may have been missed.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The Agency agreed with the OIG recommendations and developed a corrective action plan. However, as noted in the Agency's response to the OIG's draft report, the Agency addressed inaccuracies made by the OIG throughout the report. Corrective actions still ongoing include 1) performing the required cost analysis over the full life cycle of PeoplePlus and 2) analyzing alternatives to the system and determining the fiscally appropriate approach to support Agency needs. This should be completed within 120 days. Corrective actions concluded are the design and implementation of internal controls completed March 31, 2020 to 3) verify that staff complete the necessary reviews to obtain the necessary approvals and maintain the required documentation, and 4) verification staff are following the Agency's system life cycle policy and procedures utilizing the newly developed Project Health Check were completed September 20, 2019.

Corrective actions completed and continuous include the testing of security controls (BFS cloud) to better support offices identifying vulnerabilities in their systems. OCFO IT Security officials reviewed and documented the Microsoft Azure Cloud control environment where BFS is housed. OCFO has also revised its internal IT Systems Governance procedures to include more detailed description of the required reviews.

Link for findings*: https://www.epa.gov/sites/production/files/2020-04/documents/_epaoig_20200413-20-p-0134._glance.pdf

Activity 3:

Title	EPA's Fiscal Years 2019 and 2018 (Restated) Consolidated Financial Statements
Lead National Program/Region	Office of the Chief Financial Officer (OCFO), Office of Inspector General (OIG)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	November 2019

Purpose and brief description: EPA is committed to operating efficiently and effectively. In this review and annual report, this audit was performed in accordance with the Government Management Reform Act of 1994, OIG to audit the financial statements prepared by the Agency each year.

Brief list of results/conclusions/findings:

- EPA improperly recorded e-Manifest receivables and earned revenue.
- EPA misclassified e-Manifest user fee revenue.
- EPA understated its contract accrued liabilities.
- EPA needs to improve the process to disable user accounts for financial and mixed financial systems.
- EPA's Office of the Chief Financial Officer needs to protect personally identifiable information on its server used to transfer data with vendors.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The Agency made several errors recording revenue and liabilities in the annual financial statements, which resulted in multiple corrections and iterations of the financial statements. Corrective actions pending include EPA overall improving its financial statement preparation process and the development of a financial system interface with the E-Manifest system. EPA is working to help bring about improvements in the Agency' financial management practices, systems and control so that timely, reliable information is available for managing federal programs. Completion of these actions will add additional automated processes and internal controls that will result in increased accuracy and reliability of the financial statements.

Link for findings*: https://www.epa.gov/office-inspector-general/report-epas-fiscal-years-2019-and-2018-restated-consolidated-financial

Activity 4:

Title	EPA Budget Systems & Oversight of Security Controls Testing
Lead National Program/Region	Office of the Chief Financial Officer (OCFO), Office of Inspector General (OIG)

Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness
	Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	November 2019

Purpose and brief description: EPA is committed to operating efficiently and effectively and OCFO identified the required security controls needed for the Agency's budget systems that were not performed during FY 2018. EPA acknowledges that a lack of internal controls could result in vulnerabilities being found late or not at all and prevents EPA from protecting its budget data from unauthorized disclosures or modifications.

Brief list of results/conclusions/findings: EPA did not maintain documentation to substantiate whether the BFS cloud service provider tested and implemented the required security controls or the controls were working as intended to protect the BFS and its data.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The Agency implemented the OIG's recommendations. All corrective actions have been completed and include the testing of security controls (BFS cloud) to better support offices identifying vulnerabilities in their systems. The OCFO IT Security officials reviewed and documented the Microsoft Azure Cloud control environment where BFS is housed. OCFO has also revised its internal IT Systems Governance procedures to include more detailed description of the required reviews.

Link for findings*: https://www.epa.gov/sites/production/files/2019-11/documents/_epaoig_20191101-20-p-0015_glance.pdf

Activity 5:

Title	Audit of EPA's Toxic Substances Control Act Service Fee Fund Financial Statements for the Period from Inception (June 22, 2016) through September 30, 2018
Lead National Program/Region	Office of the Chief Financial Officer (OCFO), Office of Inspector General (OIG)
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment
	Strategic Objective 1.4: Ensure Safety of Chemicals in the Marketplace
Completion Date	September 2020

Purpose and brief description: EPA is committed to providing financial statements that are fairly presented and free of material misstatement. EPA acknowledges that it overstated expenses and made errors in multiple iterations of its calculation for expenses from other appropriations.

Brief list of results/conclusions/findings: No significant matters involving compliance with applicable laws and regulations, contracts, and grant agreements came to the OIG's attention during the course of the audit.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to

strategies or measures: The Agency agreed with the OIG's recommendations, however, as noted in the Agency's response to the OIG's draft report, the Agency addressed several misrepresentations made by the OIG throughout the report. The Agency made several errors in calculating expenses reported in the TSCA Service Fee Fund's financial statements. Program improvements were derived from OIG's recommendations to:

1. Improve the management review process for calculating expenses from other appropriations to be consistent with EPA component financial statement audits and to ensure costs support the TSCA Service Fee Fund activities; and
2. Establish written policies and procedures so that expenses from other appropriations in component audits reflect actual costs.

The written policies and management review process will result in a more accurate calculation of the Fund's expenses. Completion of these improvements will result in increased accuracy and reliability of the TSCA Service Fee Fund financial statements.

Link for findings*:*
https://www.epa.gov/sites/production/files/2020-09/documents/_epaoig_20200930-20-f-0342-glance.pdf

Office of Land and Emergency Management (OLEM)

Activity 1:

Title	Population Analysis
Lead National Program/Region	Office of Land and Emergency Management (OLEM), Office of Communications, Partnerships, and Analysis (OCPA)
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.3: Revitalize Land and Prevent Contamination
Completion Date	September 2020

Purpose and brief description: This bi-annual analysis supports evidence-based descriptions of who benefits from EPA cleanup and prevention work, by collecting data on the population living within three and one mile(s) of a Superfund site, Brownfields site, RCRA CA site, LUST site and UST facility that exist in thousands of communities across the United States ranging from remote to large urban settings.

Brief list of results/conclusions/findings:

- Using census data, EPA found that approximately 188 million people live within three miles of a Superfund remedial site, RCRA Corrective Action (CA), or Brownfields site, roughly 60 percent of the U.S. population, including 62 percent of all children in the U.S. under the age of five. While there is no single way to characterize communities located near these sites, this population is more minority, low income, linguistically isolated, 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.
- Approximately 91 percent of the US population lives within 3 miles of an active UST facility, and 73 percent of the US population lives within 3 miles of an open LUST site.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: Results are included in EPA's annual budget reviews with OMB, in budget justifications for Congress, and in general communications with Press, States and the public. This analysis also supports EPA's *America's Children and the Environment Report*, by estimating the number of children and their socioeconomic/demographic characteristics who live within one-mile of a RCRA CA or Superfund site that may not have had all human health protective measures in place at the time of the analysis.

Link for findings:

Results: https://www.epa.gov/aboutepa/office-land-and-emergency-management-olem-program-benefits.

Results as reported in EPA's America's Children and the Environment Report are here: https://www.epa.gov/americaschildrenenvironment/ace-environments-and-contaminants.

Activity 2:

Title	Annual Evidence Literature Search
Lead National Program/Region	Office of Land and Emergency Management (OLEM), Office of Communications, Partnerships, and Analysis (OCPA)
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.3: Revitalize Land and Prevent Contamination
Completion Date	September 2020

Purpose and brief description: EPA collects and maintains evidence on programs that implement regulations and efforts under the Resource Conservation and Recovery Act (RCRA), the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), the Emergency Planning and Community Right-to-Know Act (EPCRA) and portions of the Oil Pollution Act of 1990. Each year a literature search protocol is used to identify any new research (conducted by researchers not at the Agency) that documents and describes the effectiveness, efficiency or impact of these programs.

Brief list of results/conclusions/findings: The literature search yielded 534 related articles published between August 2018 – May 2020. After an initial review of those abstracts, EPA deemed 63 potentially relevant and read 32 in full for either inclusion in the Evidence Tool (an Excel workbook of an up-to-date list of evidence on the effectiveness and impact of OLEM's programs) or for dissemination to the program offices. All abstracts will be disseminated to the relevant program office as well.

The 534 articles were related to the following OLEM programmatic categories:

1. Superfund Program and OEM: Superfund Removal (161)
2. Brownfields Program (52)
3. Underground Storage Tanks Program (27)
4. RCRA Program: RCRA Subtitle C and RCRA Subtitle D (118)
5. RCRA Program: Sustainable Materials Management (SMM) Practices EPA Voluntary SMM Programs (59)
6. RE-Powering America's Land (104)
7. Oil Spill Prevention: Spill Prevention, Control, and Countermeasures (SPCC), Regulation and Facility Response Plan (FRP) Program, and the Risk Management Plan (RMP) Regulation (30)

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: Results of the evidence literature search are used to better understand the effectiveness, efficiency and impacts of EPA programs. As this body of evidence develops, it may inform future decision-making about program structure or policies and be used to identify evidence gaps. Results may also be used for communication to our stakeholders.

Link for findings: N/A.

Activity 3:

Title	Analysis of Michigan's LUST Cleanups Backlog
Lead National Program/Region	Office of Land and Emergency Management (OLEM), Office of Underground Storage Tanks (OUST), Region 5
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.3: Revitalize Land and Prevent Contamination
Completion Date	September 2020

Purpose and brief description: At 8,225 open releases, Michigan has the second largest backlog of LUST releases in the country. EPA and Michigan analyzed the characteristics and status of those releases to identify root causes and potential strategies to address the backlog.

Brief list of results/conclusions/findings: The analysis covers ten chapters on priority, funding/claims, status and more. Key findings: MI releases are old (54% from the 1990s). Most (86%) are inactive or stopped status. Most have not completed assessment (only 28% from 1996-2014 have submitted a final assessment report). Twenty-five percent has an unknown risk classification status.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA, in conjunction with Michigan, identified three strategy areas to pursue: progress on prioritizing releases, most of Michigan's releases are old and likely stalled, and Michigan's likely orphan UST problem. EPA and Michigan identified several strategies within each area. In FY 2021, EPA and Michigan are identifying implementation steps.

Link for findings: N/A.

Activity 4:

Title	National Geospatial Database of Underground Storage Tanks and Leaking Underground Storage Tanks (UST Finder)
Lead National Program/Region	Office of Land and Emergency Management (OLEM), Office of Underground Storage Tanks (OUST), Office of Research and Development (ORD)
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.3: Revitalize Land and Prevent Contamination
Completion Date	September 2020

Purpose and brief description: The purpose of this project was to develop an initial estimate of the number of people in the US that live within close proximity of UST and LUST sites.

Brief list of results/conclusions/findings: This is an active tool allowing comparison between UST/LUST location and population, groundwater and source water protection areas, natural disaster zones, and more.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The results will improve EPA's evidence-based descriptions of who benefits from cleanup work related to sites that exist in thousands of communities across the United States ranging from remote to large urban settings. It also provides the first ever geospatial national UST/LUST database, which will be utilized for future analysis.

Link for findings: https://www.epa.gov/ust/ust-finder.

Office of Mission Support (OMS)

Activity 1:

Title or Topic of Study/Tool/Project	Strategic Sourcing
Lead National Program/Region	OMS
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Expected Completion Date	November 2020

Purpose and brief description: This is an annual internal assessment of EPA's buying patterns. The purpose of the assessment is to provide information that will help EPA determine services and products most conducive to strategic sourcing, thereby improving the Agency's buying power.

Brief list of results/conclusions/findings: In FY 2020, EPA identified $2.45 million avoided costs using data analysis tools to monitor specific, measurable data related to print services, cellular services, shipping, Microsoft software, Adobe software, Oracle software, voice services, office supplies, PCs, and furniture.

Since the beginning of the Strategic Sourcing Program in FY 2013, EPA achieved cost avoidance of $21.8 million.

Building on the Strategic Sourcing's previous success and as a result of the annual assessment, in FY 2020, EPA added two new categories, Adobe software and Oracle software.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: As a result of the annual assessment, in FY 2021, EPA plans to award strategic sourcing initiatives for VMWare, Salesforce, Lab Equipment & Maintenance, and SPLUNK (software) and initiate planning for Digital Services.

Link for findings: N/A

Activity 2:

Title or Topic of Study/Tool/Project	Space Reduction
Lead National Program/Region	OMS
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Expected Completion Date	FY2020

Purpose and brief description: This annual assessment is a continuation of the Real Property Efficiency Plan completed in FY 2016.

The purpose of this assessment is to measure the square footage of unused EPA space released each fiscal year. As space is released, EPA tracks the square footage of the space released in OMS's Office of Administrative Services Information System (OASIS).

Brief list of results/conclusions/findings: In FY 2020, EPA released 116,425 square feet of unused office and warehouse space. EPA is on track to meet the Long-Term Performance Goal of releasing over 850,000 sq. ft of space by the end of FY 2022. The Potomac Yards space release was originally scheduled to be completed in FY 2021, however, due to COVID-19 delays EPA is shifting the completion target into FY 2022.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA leveraged this assessment to continue Headquarters consolidation work that will lead to the closure of Potomac Yards in FY 2022.

Link for findings: N/A

Activity 3:

Title or Topic of Study/Tool/Project	EPA Needs to Improve Processes for Securing Region 8's Local Area Network 20-E-0309
Lead National Program/Region	OIG, OMS, R8, OCFO
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	September 2020

Purpose and brief description: OIG performed this audit to (1) assess the completeness of EPA's processes for testing its network to identify potential vulnerabilities that could compromise the Agency's systems and data, and (2) conduct an independent automated vulnerability testing of information technology resources connected to EPA's network to identify vulnerabilities that could compromise the confidentiality, integrity, and availability of Agency information systems and data.

Brief list of results/conclusions/findings: OIG recommended that the Office of Mission Support review and implement procedures to verify that vulnerability tests and their results are comprehensive.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The Agency concurred with the findings and is working to develop and implement processes to analyze corrective measures and to verify IP addresses on the Agency's network addressable systems.

Link for findings: https://www.epa.gov/sites/production/files/2020-09/documents/_epaoig_20200910-20-e-0309.pdf

Activity 4:

Title or Topic of Study/Tool/Project	EPA's Lack of Oversight Resulted in Serious Issues Related to an Office of Water Contract, Including Potential Misallocation of Funds 20-P-0331
Lead National Program/Region	OIG, OMS/OW
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	September 2020

Purpose and brief description: OIG conducted an audit of EPA's management of Contract No. EP-C-16-001, which was awarded in December 2015 to Northbridge Group. This audit was initiated in response to a hotline complaint regarding possible irregularities in EPA's funding practices and payment of invoices for the contract.

The purpose of this audit was to determine whether:

1. EPA funding actions are allowable or pose risks to the Agency.
2. Invoices are being approved and paid without proper review of costs.

Brief list of results/conclusions/findings: EPA's management of Contract No. EP-C-16-001 lacked sufficient controls. For example, EPA programmatic contracting officer representative staff:

- Potentially misallocated funds for the contract.
- Violated the Inspector General Act of 1978, as amended, by destroying certain requested documents. As a result, neither the Agency nor OIG can determine how the Agency allocated over $10 million of EPA funds for Contract No. EP-C-16-001.
- Paid invoices without input from EPA staff more familiar with Northbridge's work. In some cases, these EPA staff did not receive the invoices to review and approve until months after the invoices were paid.
- Did not perform detailed reviews of invoices. Had contracting staff thoroughly reviewed Northbridge's invoices when they were submitted, the Agency could have questioned why Northbridge was using more costly labor than originally estimated. The Agency also could have

saved up to $565,529 on direct labor and associated overhead over three years if Northbridge had used its less costly labor, as originally estimated.

- Did not conduct required records inspections of Contract No. EP-C-16-001

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OMS' Office of Acquisition Solutions (OAS) concurred with the findings and agreed to provide training to applicable staff. OAS agreed to send out a flash notice in reference to EPAAG 42.3.4 Contract Management Plans.

OMS/OAS also will implement internal controls to verify that all contracting officers complete contracting officer's representative records inspections annually.

Link for findings: https://www.epa.gov/office-inspector-general/report-epas-lack-oversight-resulted-serious-issues-related-office-water

Activity 5:

Title or Topic of Study/Tool/Project	Management Alert: EPA Region 5 Needs to Implement Effective Internal Controls to Strengthen Its Records Management Program 20-E-0295
Lead National Program/Region	OIG, OMS/R5
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	August 2020

Purpose and brief description: OIG conducted this audit to determine whether EPA Region 5 lost federal records during its data migration initiative and followed its processes to investigate the suspected loss of potential records. OIG initiated this audit based on an OIG Hotline complaint submitted in May 2019. The complainant alleged that thousands of electronic files were lost during an attempt to migrate—that is, move—files to the cloud file storage system.

Brief list of results/conclusions/findings: Region 5 does not know whether electronic files that contained records or information subject to litigation holds were included in the files lost when the complainant migrated those files to the Agency's cloud file storage system. Additionally, Region 5 did not communicate the suspected loss of potential records to the Agency Records Officer until February 2020, 11 months after the complainant learned that the files could not be recovered.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OMS concurred with OIG's findings and agreed to update Records Management Policy and send a reminder to Records Liaison Officers about the requirement to report to the Agency Records Officer the loss or unauthorized destruction of records.

Link for findings: https://www.epa.gov/office-inspector-general/report-management-alert-epa-region-5-needs-implement-effective-internal

Activity 6:

Title or Topic of Study/Tool/Project	EPA Needs to Strengthen Controls Over Required Documentation and Tracking of Intergovernmental Personnel Act Assignments 20-P-0245
Lead National Program/Region	OIG, OMS
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	August 2020

Purpose and brief description: OIG conducted this audit to determine whether:

1. EPA's use of assignments under the Intergovernmental Personnel Act is in accordance with federal requirements and Agency policy and procedures.
2. The IPA assignments achieved their purpose.

Brief list of results/conclusions/findings: EPA's use of assignments under the IPA complied with applicable statutory and regulatory requirements and with IPA guidance issued by the U.S. Office of Personnel Management. However, the Agency did not always comply with documentation requirements contained in its Intergovernmental Personnel Act Policy and Procedures Manual (IPA). The Agency also did not enforce the Manual's requirement that assignments be terminated if annual progress reports are not submitted.

OIG recommended that the assistant administrator for Mission Support update the Agency's Intergovernmental Personnel Act Policy and Procedures Manual (IPA) to reflect relevant and appropriate requirements, strengthen controls over IPA assignment documentation and tracking, and enforce requirements for noncompliance with IPA requirements.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OMS' Office of Human Resources (OHR) concurred with OIG's findings and agreed to assess EPA's IPA policy manual, checklists, required documents, the consequences of noncompliance, responsible offices, and relevance of individual roles and responsibilities. OMS-OHR will enter a final draft in the Directives Clearance process.

OMS-OHR will strengthen controls throughout the IPA assignment process to verify required documents are properly submitted and maintained, as stated in EPA's IPA policy manual, and the consequences for nonsubmittal of required documents are enforced.

OMS-OHR will strengthen controls over the tracking of EPA employees on IPA assignments.

Link for findings: https://www.epa.gov/office-inspector-general/report-epa-needs-strengthen-controls-over-required-documentation-and

Activity 7:

Title or Topic of Study/Tool/Project	EPA Needs to Address Internal Control Deficiencies in the Agencywide Quality System

	20-P-0200
Lead National Program/Region	OIG, OMS
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	June 2020

Purpose and brief description: A November 2018 OIG scientific integrity survey yielded hotline complaints on potential internal control issues with EPA's Quality System. OIG conducted this audit to determine whether the Office of Mission Support has controls in place to carry out its responsibility in developing and coordinating the mandatory agencywide Quality System.

Brief list of results/conclusions/findings: OIG found OMS has not fully implemented internal controls for the mandatory agencywide Quality System. OIG found that OMS has not reviewed policies, procedures, and guidance within required time frames. For example, reviews of two quality policies were 15 years overdue. OIG also found that OMS has not conducted required annual reviews for five years. OMS has also not conducted regular assessments of program and regional quality systems as more than half of the systems had not had a review in the past six years. Also, OMS has not assessed staff and resource needs since 2008, and OMS has not performed a programmatic risk assessment. Additionally, OMS has not developed a strategic plan, implemented a tracking system, or provided agencywide training.

OMS leaders and staff identified four factors that led to control deficiencies: (1) Quality System leaders over time have had varying priorities; (2) Quality System staff had a backlog of work; (3) Quality System leaders determined that variations in the length, details, and format of annual reviews made them difficult to analyze and compare; and (4) the Quality System lacked resources for its work.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OMS concurred with OIG's findings and agreed to implement corrective actions to address the fifteen recommendations from OIG's final report.

Link for findings: https://www.epa.gov/office-inspector-general/report-epa-needs-address-internal-control-deficiencies-agencywide-quality

Activity 8:

Title or Topic of Study/Tool/Project	EPA's Fiscal Year 2019 First Quarter Compliance with the Digital Accountability and Transparency Act of 2014 20-P-0026
Lead National Program/Region	OIG, OMS/OCFO
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	November 2019

Purpose and brief description: OIG performed this audit to assess the completeness, accuracy, timeliness and quality of fiscal year (FY) 2019 first quarter financial and award data submitted to USAspending.gov by EPA's Office of the Chief Financial Officer, and to assess EPA's implementation and use of the governmentwide financial data standards established by the Office of Management and Budget (OMB) and U.S. Department of the Treasury (Treasury).

Brief list of results/conclusions/findings: OIG found that EPA's 2019 first quarter financial and award data was of "higher" quality as defined by the DATA Act audit guide issued by the Council of the Inspectors General on Integrity and Efficiency.

The DATA Act audit guide defines data as being of higher, moderate or lower quality based on the highest error rate found in testing the completeness, accuracy and timeliness of data submitted.

OIG found inconsistencies in processing data that created reporting errors in completeness, accuracy and timeliness for DATA Act reporting purposes. OIG also found that EPA did not have documented standard operating policies and procedures for DATA Act reporting. While OIG found reporting errors and some issues with documentation of policies and procedures, overall, EPA has complied with the requirements of the DATA Act, submitted financial and award data to the Treasury Broker on time, and had implemented data standards as defined by OMB and Treasury.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OMS concurred with OIG's findings and agreed to implement corrective actions to address the two recommendations from OIG's final report.

Link for findings: https://www.epa.gov/office-inspector-general/report-epas-fiscal-year-2019-first-quarter-compliance-digital

Activity 9:

Title or Topic of Study/Tool/Project	EPA Needs to Improve Its Risk Management and Incident Response Information Security Functions 20-P-0120
Lead National Program/Region	OIG, OMS
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	March 2020

Purpose and brief description: OIG performed this audit to assess EPA's compliance with the fiscal year 2019 Inspector General reporting instructions for the Federal Information Security Modernization Act of 2014.

Brief list of results/conclusions/findings: OIG assessed the maturity of EPA's information security program at Level 3, Consistently Implemented. A Level 3 designation means that EPA's policies, procedures, and strategies are consistently implemented but quantitative and qualitative effectiveness measures are lacking. To determine EPA's maturity level, OIG reviewed the five security function areas

outlined in the FY 2019 IG FISMA Reporting Metrics: Identify, Protect, Detect, Respond, and Recover. OIG also reviewed the eight corresponding domains: Risk Management, Configuration Management, Identity and Access Management, Data Protection and Privacy, Security Training, Information Security Continuous Monitoring, Incident Response, and Contingency Planning.

While EPA consistently implemented policies, procedures, and strategies for many of these function areas and domains, improvements are still needed:

- Risk Management: EPA did not implement standard data elements for software and associated licenses used within the Agency's information technology environment, and the plans of action and milestones were not consistently used to mitigate security weaknesses.
- Incident Response: EPA did not implement prescribed technologies to support its incident response program.

OIG recommend that the Assistant Administrator for Mission Support (1) develop and maintain an up-to-date inventory of Agency software and associated licenses, (2) establish a control to validate that Agency personnel are creating the required plans of action and milestones associated with vulnerability testing, and (3) implement prescribed technologies to support EPA's incident response program.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OMS concurred with OIG's findings and agreed to implement corrective actions to address the three recommendations from OIG's final report.

Link for findings: https://www.epa.gov/office-inspector-general/report-epa-needs-improve-its-risk-management-and-incident-response

Activity 10:

Title or Topic of Study/Tool/Project	EPA Did Not Accurately Report Under the Grants Oversight and New Efficiency Act and Needs to Improve Timeliness of Expired Grant Closeouts 20-P-0126
Lead National Program/Region	OIG, OMS
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	March 2020

Purpose and brief description: OIG performed this audit to determine:

- Whether EPA complied with Grants Oversight and New Efficiency Act requirements (Pub. L. 114- 117) by timely submitting information about expired grant awards to Congress and the U.S. Department of Health and Human Services.
- The effectiveness of EPA's management of and accountability for the timely closeouts of grant awards.

Brief list of results/conclusions/findings: EPA complied with the GONE Act by timely submitting the required information to Congress and the Department of Health and Human Services. However, EPA

reported a count of expired grant awards that was not accurate. This inaccuracy occurred because EPA's Office of Grants and Debarment did not follow the cutoff date requirement of September 30, 2017. As a result, EPA provided Congress with incorrect information that could affect Congress' decision-making.

In addition, EPA needs to improve the timeliness of its grant closeouts. In fiscal year 2018, EPA overall did not meet the one-year closeout metric, and not all EPA regions met the two-year closeout metric. EPA did not enforce its requirement that underperforming regions implement grant closeout strategies, which would help address timeliness issues. Also, EPA regions delayed some grant closeouts for several years because they did not have a specific mechanism to escalate difficult cases to the Office of Grants and Debarment. Because of these closeout challenges, as of September 6, 2019, EPA's undisbursed balances for grant awards that expired on or before September 1, 2018, totaled approximately $8.3 million.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OMS concurred with OIG's findings and agreed to implement corrective actions to address the four recommendations from OIG's final report.

Link for findings: https://www.epa.gov/office-inspector-general/report-epa-did-not-accurately-report-under-grants-oversight-and-new

Activity 11:

Title or Topic of Study/Tool/Project	EPA Should Improve Oversight of Mobile Phones 20-P-0068
Lead National Program/Region	OIG, OMS
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	January 2020

Purpose and brief description: OIG conducted this audit to determine whether the U.S. Environmental Protection Agency (EPA) effectively manages its mobile phones.

Brief list of results/conclusions/findings: EPA's Office of Information Technology Operations (OITO) needs to improve its oversight of mobile phones at the program office and regional levels. Specifically, the OITO did not:

- Require justifications for mobile phone use.
- Determine whether the program and regional offices had standard operating procedures in place for the management of mobile phones.
- Confirm that the required acknowledgment forms were signed and completed before processing mobile phone orders.
- Inform all Agency mobile phone users about what types of calls do not count toward the Agency's monthly ceiling of mobile voice and data limits.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to

strategies or measures: OMS concurred with OIG's findings and agreed to implement corrective actions to address the three recommendations from OIG's final report.

Link for findings: https://www.epa.gov/office-inspector-general/report-epa-should-improve-oversight-mobile-phones

Activity 12:

Title or Topic of Study/Tool/Project	EPA Needs to Improve Management and Monitoring of Time-Off Awards 20-P-0065
Lead National Program/Region	OIG, OMS
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	December 2019

Purpose and brief description: OIG conducted this audit to determine whether the Agency is appropriately using split and combined time-off and monetary awards. A split award is a monetary award that has been separated into two or more smaller awards. A combined award includes both time-off and monetary awards.

In response to an OIG audit completed in 2015 (EPA OIG Report No. 16-P-0048, issued November 30, 2015), EPA adopted an interim policy related to the approval of awards. This interim policy requires a higher-level review and approval of individual employee monetary awards that total more than $5,000 for any one employee in a fiscal year.

Brief list of results/conclusions/findings: EPA successfully implemented interim policies and procedures for reviewing and approving monetary awards that total more than $5,000 in a fiscal year for any one employee. However, the Agency does not follow U.S. Office of Personnel Management guidance for valuing time-off awards. Specifically, EPA does not assess a value for time-off awards as part of its awards program. The Agency, therefore, cannot determine whether its time-off awards are consistently assessed, approved at the appropriate level when combined with monetary awards, and commensurate with employee achievements.

OIG also found that the Agency does not monitor time-off awards as a resource. From calendar years 2015 through 2017, the Agency awarded 355,511 hours—a total of over 170 full-time positions—in time-off awards. However, these awards are not managed or monitored in regard to Agency productivity or workload management. A large number of time-off hours awarded results in lost productivity, which can adversely impact the Agency's mission.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OMS concurred with OIG's findings and agreed to implement corrective actions to address the three recommendations from OIG's final report.

Link for findings: https://www.epa.gov/office-inspector-general/report-epa-needs-improve-management-and-monitoring-time-awards

Activity 13:

Title or Topic of Study/Tool/Project	Outdated EPA Leave Manual and Control Weaknesses Caused Irregularities in the Office of Air and Radiation's Timekeeping Practices 20-P-0063
Lead National Program/Region	OIG, OMS/OAR
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	December 2019

Purpose and brief description: OIG conducted this audit to address concerns about time and attendance irregularities within the Office of Air and Radiation. These concerns were identified in a prior OIG audit. Our objectives for this audit were to identify and analyze risks in the Office of Air and Radiation's timekeeping practices.

Brief list of results/conclusions/findings: Entitlements under the Family and Medical Leave Act of 1993 are not formalized in EPA's Leave Manual. Without a policy that is updated to reflect current law, staff and supervisors may not be aware of or fully understand leave entitlements under the act, which may result in decisions about leave that are contrary to public law. Furthermore, our analysis of time and attendance records identified untimely prior pay period adjustments, which resulted in salary overpayments. OIG also identified the improper approval of Travel Compensatory Time Off—time off earned for time spent in a travel status away from the employee's official duty station that is not otherwise compensable.

These conditions occurred due to a lack of three things:

- An up-to-date policy and understanding of leave entitlements under the Family and Medical Leave Act of 1993.
- Controls overpay period adjustments.
- Supervisory enforcement of established time frames for submittal of Travel Compensatory Time Off.

Without additional internal controls, employees can make after-the-fact timekeeping adjustments to create salary overpayments and/or improperly restore leave balances. Employees may also receive Travel Compensatory Time Off that is not in compliance with EPA's Pay Administration Manual.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OMS concurred with OIG's findings and agreed to implement corrective actions to address the three recommendations for OMS from OIG's final report.

Link for findings: https://www.epa.gov/office-inspector-general/report-outdated-epa-leave-manual-and-control-weaknesses-caused

Activity 14:

Title or Topic of Study/Tool/Project	EPA's Fiscal Years 2019 and 2018 (Restated) Consolidated Financial Statements 20-F-0033
Lead National Program/Region	OIG, OMS
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	November 2019

Purpose and brief description: OIG performed this audit in accordance with the Government Management Reform Act of 1994, which requires OIG to audit the financial statements prepared by the Agency each year. OIG's primary objectives were to determine whether:

- EPA's consolidated financial statements were fairly stated in all material respects.
- EPA's internal controls over financial reporting were in place.
- EPA management complied with applicable laws, regulations, contracts and grant agreements.

The requirement for audited financial statements was enacted to help bring about improvements in agencies' financial management practices, systems and control so that timely, reliable information is available for managing federal programs.

Brief list of results/conclusions/findings: OIG noted the following material weakness: EPA needs to improve its financial statement preparation process.

OIG noted the following significant deficiencies:

- EPA improperly recorded e-Manifest receivables and earned revenue.
- EPA misclassified e-Manifest user fee revenue.
- EPA understated its contract accrued liabilities.
- EPA needs to improve the process to disable user accounts for financial and mixed financial systems.
- EPA's Office of the Chief Financial Officer needs to protect personally identifiable information on its server used to transfer data with vendors.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OMS concurred with OIG's findings and agreed to implement corrective actions to address the two recommendations from OIG's final report.

Link for findings: https://www.epa.gov/office-inspector-general/report-epas-fiscal-years-2019-and-2018-restated-consolidated-financial

Activity 15:

Title or Topic of Study/Tool/Project	Management Alert - EPA Still Unable to Validate that Contractors Received Role-Based Training for Information Security Protection 20-P-0007

Lead National Program/Region	OIG, OMS
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	October 2019

Purpose and brief description: OIG conducted this follow-up audit to determine whether EPA completed actions for Recommendation 3 in prior OIG Report No. 17-P-0344. The recommendation required EPA to maintain a list of contractors required to take role-based training (RBT) and validate that all contractors have completed RBT. OIG further sought to determine (1) whether EPA offices' fiscal year 2018 certifications were accurate and (2) what additional steps are needed to verify contractors' completion of RBT.

RBT is continuous education that improves current knowledge, skills and abilities for a particular job function.

Brief list of results/conclusions/findings: EPA continues to lack information to monitor compliance with the following RBT requirements:

- Confirming that contractor personnel completed the required RBT.
- Including RBT provisions in existing information technology services contracts.
- Maintaining a list of contractor personnel required to complete RBT.

These weaknesses occurred because:

- Most EPA offices did not validate that all contractors completed the required RBT.
- EPA Contracting Officer's Representatives were unfamiliar with RBT requirements.
- EPA's directives did not explicitly designate who is responsible for maintaining a list of contractors required to complete RBT.

As a result, only seven of 21 (33 percent) EPA offices submitted a complete response by September 30, 2018, to EPA's Chief Information Security Officer certifying that contractors completed the required RBT. OIG issued this management alert on these weaknesses because immediate improvements are needed to verify that contractors are trained in their roles to protect Agency systems and data.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: OMS concurred with OIG's findings and agreed to implement corrective actions to address the four recommendations from OIG's final report.

Link for findings: https://www.epa.gov/office-inspector-general/report-management-alert-epa-still-unable-validate-contractors-received-role

Activity 16:

Title or Topic of Study/Tool/Project	Government Purchase Cards: Opportunities Exist to Leverage Buying Power (GAO 16-526)

Lead National Program/Region	OMS (GAO)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	September 2020

Purpose and brief description: GAO reviewed whether EPA was effectively leveraging buying power when using purchase cards. The audit assesses the extent to which selected (1) EPA analyzed purchase card data to identify opportunities to leverage buying power agency-wide and (2) purchase cardholders seek opportunities to achieve cost savings when using purchase cards.

Brief list of results/conclusions/findings: EPA developed guidance to encourage local officials to examine purchase card spend patterns and share this information.

How EPA used the results/conclusions/findings: EPA concurred with the GAO's findings and updated its Purchase Card Standard Operating Procedures (SOP) to ensure consideration of opportunities to leverage the Agency's buying power.

Link for findings: https://www.gao.gov/products/GAO-16-526.

Activity 17:

Title or Topic of Study/Tool/Project	Federal Software Licenses: Better Management Needed to Achieve Significant Savings Government-Wide (14-413) (4 closed/2open)
Lead National Program/Region	OMS (GAO)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	August 2020

Purpose and brief description: GAO recommended that EPA develop an agency-wide comprehensive policy for the management of software licenses and establish a comprehensive inventory of software licenses using automated tools for the majority of Agency software license spending and/or enterprise-wide licenses.

Brief list of results/conclusions/findings: EPA developed a comprehensive policy, Information Directive Policy and Information Directive Procedure for Software Management and Piracy Policy, and EPA regularly uses the CDM/ForeScout/McAfee/BigFix tool to create the inventory as well as considered the recommendations to improve IT Asset Management capabilities from the IT Operations Planning Committee (IT OPC) Software Management Workgroup.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA concurred with the GAO's findings and agreed to develop a comprehensive policy, and tools to furthered enhanced the management of EPA's software licenses which in turn fostered more savings.

Link for findings: https://www.gao.gov/products/GAO-14-413.

Activity 18:

Title or Topic of Study/Tool/Project	Information Technology: Additional OMB and Agency Actions Are Needed to Achieve Portfolio Savings (GAO 14-65)
Lead National Program/Region	OMS (GAO)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	September 2020

Purpose and brief description: GAO recommended that EPA develop a complete commodity IT baseline, fully describe the following PortfolioStat action plan elements, and consolidate the managed print services and strategic sourcing of end user computing to shared services as part of the OMB integrated data collection quarterly reporting.

Brief list of results/conclusions/findings: EPA provided GAO with EPA's IT Acquisition Approval Procedure (EPAAG 39.1), cited the annual review of its IT Portfolio, per 40 USC § 11319 (c) SEC. 833 and the Chief Information Officer's (CIO) meeting with each EPA Program Office and region (23 total) to discuss their IT spending and planning and to identify ways to increase the efficiency and effectiveness of the Agency's IT investments. The CIO's office also undertakes a data collection and analysis ahead of each portfolio review meeting to support these discussions and to promote efficiencies and reduce IT spending caused by duplicative acquisitions: EPA's Chief Financial Officer issues an annual Agency-wide memo that describes the "sole provider," "preferred provider," and "discretionary" services offered centrally through EPA's working capital fund; and EPA's Chief Acquisition Officer maintains Mandatory Requirements for Use of Common Contract Solutions (EPA Acquisition Guidance 8.0.100, attached). EPA also provided GAO with its print contract and READ inventory.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA believed that it had concurred with the recommendations and further assessed process and procedures to ensure Portfolio savings are achieved.

Link for findings*: https://www.gao.gov/products/GAO-14-65.

Activity 19:

Title or Topic of Study/Tool/Project	Grants Management: EPA Has Opportunities to Improve Planning and Compliance Monitoring (15-618) (3 closed/2 open)
Lead National Program/Region	OMS (GAO)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	September 2020

Purpose and brief description: GAO recommended that EPA's Office of Grants and Debarment (OGD) develop a timetable with milestones and identify and allocate resources for adopting electronic records management for all 10 regional offices, and adopt an up-to-date and comprehensive IT system by 2017 that will provide accurate and timely data on agencywide compliance with grants management directives.

Brief list of results/conclusions/findings: EPA agreed with the recommendation and is in the process of deploying a new grant management system that will improve planning and compliance.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA is modernizing its grants administration and management cloud solution for better serviceability. EPA is devoting its full attention to development, testing and deploying the new system in December 2020 to ensure that grant awards can continue to be awarded efficiently and effectively. The new system will address electronic recordkeeping for parts of the overall grant file and after deployment the Agency intends to continue exploring record management options for the remaining components of the grants file and develop a long-term electronic grants records management strategy.

Link for findings: https://www.gao.gov/products/GAO-15-518.

Activity 20:

Title or Topic of Study/Tool/Project	Data Center Consolidation: Agencies Making Progress, but Planned Savings Goals Need to Be Established (GAO 16-323)
Lead National Program/Region	OMS (GAO)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	August 2020

Purpose and brief description: GAO wanted EPA to establish planned savings goals and to include achieved closures or cost savings and avoidances in its Data Center Optimization Strategic Plan.

Brief list of results/conclusions/findings: EPA believed that Data Center Savings goals were established and could be demonstrated. EPA uses ScienceLogic's EM7 monitoring tool for measuring server utilization. EPA expects to expand use of the tool and work is underway to close the data center footprint in DCOI-DC-45621 (PYD) which is expected to be completed by Q4 2021.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA concurred with the OIG's findings. However, The Office of Management and Budget issued new data center optimization guidance, which removed the metrics highlighted in the GAO report. As a result, EPA did not plan to implement this recommendation. As stated, EPA believed that Data Center Savings goals were established and could be demonstrated. The recommendation provided further impetus to review the parameters being undertaken.

Link for findings: https://www.gao.gov/products/GAO-16-323.

Activity 21:

Title or Topic of Study/Tool/Project	IT Dashboard: Agencies Need to Fully Consider Risks When Rating Their Major Investments (16-494)
Lead National Program/Region	OMS (GAO)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	September 2020

Purpose and brief description: GAO recommended that the CIO ensures their ratings reflect the level of risk facing an investment relative to that investment's ability to accomplish its goals.

Brief list of results/conclusions/findings: EPA believed that risks were adequately considered in the rating of major IT investments. Tools used by the CIO to reflect the CIO ratings on the level of risk facing an investment relative to that investment's ability to accomplish its goals include: Following Office of Management and Budget guidance (OMB) on FY 2021 IT Budget Capital Planning Guidance, OMB Circular A-11, Capital Programming Guide, and OMB Memo M-15-14, Management and Oversight of Federal Information Technology. The CIO also established a Monthly IT Dashboard (ITDB) process i.e., every month, the CIO reviews, evaluates, and rates all major investments before submitting EPA data to OMB Dashboard and the CIO requires a Monthly narrative from the Senior Information Officer's (SIOs) that clarifies the rating for each major investment.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA disagreed with the recommendation. As stated, EPA believed it does consider risks when rating IT major investments. The recommendation provided further impetus to review the parameters being undertaken.

Link for findings*: https://www.gao.gov/products/GAO-16-494.

Activity 22:

Title or Topic of Study/Tool/Project	Grants Management: EPA Could Improve Certain Monitoring Practices (GAO 16-530) (1 closed/5 open)
Lead National Program/Region	OMS (GAO)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	September 2020

Purpose and brief description: GAO recommended that the Office of Grants and Debarment (OGD) and program and regional offices, as appropriate, as part of EPA's ongoing streamlining initiatives and the development of a grantee portal, to incorporate expanded search capability features, such as keyword searches, into its proposed web-based portal for collecting and accessing performance reports to improve their accessibility.

Brief list of results/conclusions/findings: EPA agreed with the recommendation and is in the process of deploying a new grant management system that will improve monitoring practices.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA is modernizing its grants administration and management cloud solution for better serviceability. EPA is devoting its full attention to development, testing and deploying the new system in December 2020 to ensure that grant awards can continue to be awarded efficiently and effectively. The new system will address electronic recordkeeping for parts of the overall grant file and after deployment the Agency intends to continue exploring record management options for the remaining components of the grants file and develop a long-term electronic grants records management strategy and improve overall monitoring practices.

**Link for findings*:* https://www.gao.gov/products/GAO-16-530.

Activity 23:

Title or Topic of Study/Tool/Project	Federal Chief Information Security Officers: Opportunities Exist to Improve Roles and Address Challenges to Authority (16-686)
Lead National Program/Region	OMS (GAO)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	July 2020

Purpose and brief description: GAO recommended that EPA fully define the role of the Chief Information Security Officer (CISO) and Senior Agency Information Security Officer (SAISO) in accordance with the Federal Information Security Modernization Act (FISMA) of 2014 to ensure the Agency is meeting the requirements of the law, including developing, documenting, and implementing the agency-wide information security program**.**

Brief list of results/conclusions/findings: EPA concurred and provided evidence that the role of EPA Senior Agency Information Security Officer (SAISO) is defined in Agency Information Security – Security Assessment and Authorization Procedures. The procedures cover the SAISO's role in the assessment and authorization process, which includes periodic authorizations, contingency planning and subordinate security plans.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: As stated, EPA believed it does define the roles and responsibilities of the

SAISO. The recommendation provided further impetus to review the parameters already being undertaken.

Link for findings: https://www.gao.gov/products/GAO-16-686.

Activity 24:

Title or Topic of Study/Tool/Project	Environmental Protection Agency: EPA Needs to Complete a Strategy for Its Library Network to Meet Users' Needs (10-947)
Lead National Program/Region	OMS (GAO)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.5: Improve Efficiency and Effectiveness
Completion Date	September 2020

Purpose and brief description: As part of a larger audit on library networks, GAO concluded that the last area which needed to be addressed was EPA's development of additional processes to increase public access to EPA-funded extramural research publications and data including amendments to funded extramural requests for applications for grants, contracts, and cooperative/assistance agreements.

Brief list of results/conclusions/findings: EPA agreed with the findings and developed a plan to implement the recommendation.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA released its "Plan to Increase Access to Results of EPA-Funded Scientific Research". According to the plan, its purpose is to describe steps that EPA will take to increase the availability of the results of EPA-funded research to the scientific community, environmental policy makers, other stakeholders, and the public in order to accelerate scientific breakthroughs that support the Agency's mission and policy making efforts. EPA began to include public access requirements in its extramural requests for applications for grants, contracts, and cooperative/assistance agreements.

Link for findings*: https://www.gao.gov/products/GAO-10-947 and https://www.gao.gov/products/GAO-20-81

Office of Research and Development

Activity 1:

Title	ORD's Research Products Customer Survey
Lead National Program/Region	Office of Research and Development (ORD)
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.3: Prioritize Robust Science
Completion Date	September 2020

Purpose and brief description: To measure ORD's progress on its Long-Term Performance Goal on the percentage of research products that met customer needs, ORD distributed over 200 surveys to research product users in EPA Program Offices, regions, other federal and non-federal partners to solicit feedback on the products.

Brief list of results/conclusions/findings: ORD found that 80% of ORD's research products delivered in FY 2018 had met customer needs.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The survey data collected provided important insights into ORD's contributions to its partners and customers' missions and the data was used to support research planning and engagement activities. The data collected will inform staff-level and management discussions with ORD's partners ranging from technical improvements to the quality, usability, and timeliness of ORD's research products to broader improvements to ORD's relationship with its product user base.

Link for findings: N/A.

Activity 2:

Title	New Approach Methods (NAM) Workplan
Lead National Program/Region	ORD
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.3: Prioritize Robust Science
Completion Date	June 2020

Purpose and brief description: To provide a roadmap that identifies tangible steps toward pursuing and achieving the Agency's goals to develop new approaches in lieu of animal testing to reduce mammal study requests by 30 percent by 2025 and eliminating them by 2035.

Brief list of results/conclusions/findings: Developed workplan to use as a guide to advance summary metrics on reducing mammalian animal testing requests and use. The metrics will be reported annually through its website starting in the fourth quarter (Q4) of 2021 (associated with the 2021 NAMs conference).

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: Initial calculations with in the workplan found that between 2016 and 2018 ORD average number of mammals used for research purposes was 8,600 per year. This average will be used as a baseline to establish future metrics. Over the next 15 years, ORD will continue to improve the science it uses and relies on for Agency decisions and work towards eliminating the use of mammals in testing where scientifically proven alternatives are available. These alternative methods will address both the myriad of Agency decisions and ways that chemicals can impact human health and the environment. The work plan is a milestone in this endeavor and the objectives, strategies, and deliverables provide a roadmap towards accomplishing the ambitious goals. EPA will also collaborate with stakeholders outside the Agency to encourage the development and evaluation of NAMs through STAR grants and partnerships.

Link for findings*: https://www.epa.gov/chemical-research/epa-new-approach-methods-work-plan-reducing-use-animals-chemical-testing

Activity 3:

Title	Method 537.1
Lead National Program/Region	ORD
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.3: Prioritize Robust Science
Completion Date	June 2020

Purpose and brief description: Method 537.1 is a solid phase extraction (SPE) liquid chromatography/tandem mass spectrometry (LC/MS/MS) method for the determination of selected per- and polyfluorinated alkyl substances (PFAS) in drinking water.

Brief list of results/conclusions/findings: Method 537.1 uses solid phase extraction-liquid chromatography/tandem mass spectrometry (SPE-LC/MS/MS) to quantitate 18 PFAS in drinking water. Accuracy, precision, and single laboratory lowest concentration minimum reporting levels (LCMRLs) were generated in reagent water and drinking waters. Single laboratory LCMRLs in Method 537.1 range from 0.53-6.3 ng/L. Precision and accuracy data in reagent water and drinking water was collected from multi-laboratory participants as well as LCMRLs. The LCMRLs will be used to calculate a minimum reporting level (MRL) for potential use in an Unregulated Contaminant Monitoring Relegation (UCMR).

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA Method 537.1 may be used by the Agency in future UCMRs to gather nationwide occurrence data on PFAS and is being used by EPA's regions and other Federal, state, and commercial environmental laboratories to quantitate PFAS in drinking water.

Link for findings*:
https://cfpub.epa.gov/si/si_public_record_report.cfm?Lab=NERL&dirEntryId=343042&Lab=NERL&simpleSearch=0&showCriteria=2&searchAll=Determination%2Bof%2BSelected%2BPer-%2Band%2BPolyfluorinated%2BAlkyl%2BSubstances%2B&TIMSType&dateBeginPublishedPresented=11%2F02%2F2016

Activity 4:

Title	Drinking Water Treatability Database (TDB)
Lead National Program/Region	ORD
Strategic Goal and Objective Supported	Strategic Goal 3: Greater Certainty, Compliance, and Effectiveness Strategic Objective 3.3: Prioritize Robust Science
Completion Date	September 2020

Purpose and brief description: The Drinking Water Treatability Database (TDB) provides components that will locate information on the control of contaminants of interest.

Brief list of results/conclusions/findings: The TDB includes information on 35 treatment processes and 123 regulated and unregulated contaminants, including 26 PFAS chemicals, all in a more user-friendly web-based app.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The referenced information in the TDB comprises bench-, pilot-, and full-scale studies of surface, ground, and laboratory waters gathered from thousands of literature sources, including peer-reviewed journals and conferences, other conferences and symposia, research reports, theses, and dissertations. Over time, the TDB will expand to include over 200 regulated and unregulated contaminants and their contaminant properties. The TDB can help drinking water utilities, water treatment process design engineers, researcher organizations, federal and state regulators, professional organizations, environmental groups, and academicians. It can be used to identify effective drinking water treatment processes, to plan for future treatment plant upgrades, to provide information to first responders to spills or emergencies, to recognize research needs, to complement literature reviews and literature searches, and to assist regulators in Best Available Technology and Contaminant Candidate List (CCL) decisions.

Link for findings*: https://tdb.epa.gov/tdb/home/

Office of Water (OW)

Activity 1:

Title	CBPO's ELMS Project: Grant Monitoring Reviews
Lead National Program/Region	OW, Region 3, Chesapeake Bay Program Office (CBPO)
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.2: Provide for Clean and Safe Water
Completion Date	FY 2020

Purpose and brief description: EPA recognized that monitoring reviews for grants, cooperative agreements and interagency agreements, herein "grants," were being conducted late, jeopardizing the Agency's ability to flag and track grant problems (e.g., high unliquidated obligations) on a timely schedule. This increased the risk of losing funds and incomplete projects. To tackle this complex issue, EPA selected the Grant Monitoring Reviews to undergo EPA Lean Management System (ELMS) process in FY 2020 in CBPO.

Brief list of results/conclusions/findings: In FY 2019, prior to the deployment of this project, CBPO was scheduled to conduct 100 monitoring reviews. Of those 100 reviews, 18% were conducted on-time with some being 90+ days late, creating a large backlog. It was discovered during the ELMS training – prior to the deployment of the project –that process inconsistencies and uncertainties, the loss of staff, and an increase in workload of the remaining staff caused much of the delay.

ELMS techniques were adopted in FY 2020, which included establishing weekly huddles, and within two months the monitoring review backlog was cleared. By the end of FY 2020 Quarter One (Q1), the percent of on-time monitoring reviews reached 100%, surpassing the initial goal of completing 35% of fiscal quarter reviews on-time. Given this quick success, the grant monitoring review ELMS team elected

to increase its goal to 50% in FY 2020 Q2, exceeding this target in FY 2020 Q3 (93%) and exceeding the target for FY 2020 Q4 (79%). Discussion of increasing the target is once again underway.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The grant monitoring review process significantly improved upon applying ELMS tools and processes. The team utilized ELMS to visually map the review process, identify roadblocks, develop a plan to address backlogs, and to establish a venue for regular dialogue and check-ins. Use of visual management tools (i.e., flow board, performance board, and huddles) have enhanced engagement with Project Officers (POs) and created a stronger sense of accountability and open communication.

Link for findings*: N/A.

Activity 2:

Title	Strategy Review System (SRS)
Lead National Program/Region	OW/Region 03/CBPO
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.2: Provide for Clean and Safe Water
Completion Date	August 2020

Purpose and brief description: The Chesapeake Bay Program's Strategy Review System (SRS) is an adaptive management-based performance review process developed by the Chesapeake Bay Program partners to consistently assess and track progress across all 31 outcomes of the Chesapeake Bay Watershed Agreement. Quarterly reviews of 15 outcomes were conducted in FY 2020 to review progress toward outcomes and identify opportunities to collaborate and improve. This performance measurement activity occurs once every 2 years for each outcome committed to in the Bay Watershed Agreement. To assess each of the 31 outcomes in the Agreement, performance toward a different set of outcomes is assessed each quarter.

Brief list of results/conclusions/findings: Results from the quarterly reviews include improved collaboration, accountability, and better alignment of our science and communications; more effective leveraging of partnership expertise and over $1.5 billion federal and state funds. Detailed results and findings by outcome can be found at https://www.chesapeakebay.net/decisions/management-decisions

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: Discussions and action items resulting from the quarterly progress reviews informed the Management Board on progress toward outcomes, identified opportunities to engage new partners, and informed the next two years of work for those 15 outcomes. Details can be found on ChesapeakeDecisions which documents management decisions and follow-up actions, and tracks dates, deadlines, and status of documents.

One significant program improvement, from the February 2020 quarterly progress meeting, led to EPA's Administrator becoming a signer of a historic statement, released at the August 2020 Chesapeake Executive Council meeting, reaffirming the Partnership's commitment to embracing diversity, equity, inclusion and justice in all forms. The *Statement in Support of Diversity, Equity, Inclusion and Justice*

commits the Chesapeake Bay Program to strengthen and improve diversity, equity, inclusion and justice in all areas of the partnership, recruit and retain staff and volunteers that reflect the diversity of the Chesapeake Bay watershed, foster a culture of inclusion and respect across all partner organizations and ensure the benefits of our science, restoration and partnership programs are distributed equitably without disproportionate impacts on vulnerable populations. The Statement in Support of Diversity, Equity, Inclusion and Justice can be found at: https://www.chesapeakebay.net/channel_files/40996/deij_statement_final_all_signatures.pdf

Link for findings: https://www.chesapeakebay.net/decisions

Activity 3:

Title	Two-year Milestones
Lead National Program/Region	OW/Region 3/WD and CBPO
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.2: Provide for Clean and Safe Water
Completion Date	June 2020

Purpose and brief description: The Chesapeake Bay Program's jurisdictional partners agreed to develop two-year milestones that reflect programmatic and numeric commitments the jurisdictions will implement in order to have 100% of practices in place by 2025 to meet the Chesapeake Bay's tidal water quality standards. As a part of the Chesapeake Bay Total Maximum Daily Load's (TMDL's) accountability framework, EPA reviews and assesses the jurisdictions' milestone submissions to assess progress and ensure they are on track towards meeting the 2025 water quality goals.

Brief list of results/conclusions/findings: EPA recently completed its assessment of each jurisdiction's 2018-2019 milestones report and the 2020-2021 milestones submission in June 2020. In those evaluation documents, EPA identified key strengths and areas for the jurisdictions to address in order to maintain or accelerate progress to meet water quality commitments. Overall, increased implementation in the agricultural sector will be needed as most jurisdictions are planning to meet the majority of their respective nitrogen load reduction goals in that sector.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: EPA committed in its assessments to work with each of the jurisdictions to develop specific oversight and assistance activities to support implementation efforts, including funding, technical assistance and analysis, training and regulatory reviews. EPA will continue to monitor and assess progress through these two-year milestone reviews and will report to the Chesapeake Bay Program partnership and the public on the jurisdictions' success in meeting their 2025 water quality goals.

Link for findings: https://www.epa.gov/chesapeake-bay-tmdl/epa-final-evaluation-2018-2019-milestone-progress-and-2020-2021-milestone

Activity 4:

Title	CAST Upgrades

Lead National Program/Region	OW/Region 3/CBPO
Strategic Goal and Objective Supported	Strategic Goal 1: A Cleaner, Healthier Environment Strategic Objective 1.2: Provide for Clean and Safe Water
Completion Date	July 2020

Purpose and brief description: EPA uses a suite of computer modeling tools to understand the cause-and-effect relationships among Chesapeake Bay Program watershed conditions, Best Management Practices (BMP) implementation, nutrient and sediment loads, and attainment of water quality standards in the tidal estuary. The watershed model, Chesapeake Assessment Scenario Tool (CAST), is a free web-based pollutant load estimator tool that streamlines environmental planning and is used as one measure of progress in the accountability framework of the Chesapeake Bay TMDL.

The Chesapeake Bay Program periodically makes changes to the tools, updates monitored and measured inputs, incorporates new science and revisits predictions to formulate the next set of actions to take. CAST is updated every two years so that the best available science, data and information are used to inform and support restoration efforts and collective decision-making processes.

Brief list of results/conclusions/findings: An updated version of CAST, "CAST19", was approved by the Chesapeake Bay Program partnership on July 9, 2020. The new data and methods realigned earlier predictions so that they better measure changing conditions in the watershed. New information that had greater impact on the accuracy of model assessments included 1) the 2017 U.S. Department of Agriculture (USDA) Census of Agriculture (animal populations, agricultural land uses, crop yields, etc.), 2) sales of fertilizer in both agricultural and urban areas, and 3) new BMPs approved by the Chesapeake Bay Program as well as revised BMP histories.

How EPA used the results/conclusions/findings to make program improvements, support planning and policy decision making, assess progress toward mission/objectives, and/or make changes to strategies or measures: The approved CAST19 model more accurately reflects what is happening on the ground because of the introduction of new science, data, information and methods. Therefore, there is a better understanding of how management actions and decisions impacted water quality and living resources across the Chesapeake Bay watershed. Accurately capturing changes in the watershed on a regular basis provided the partnership with a better understanding of where it is with respect to goals and what planning and policy adjustments would be most effective going forward. Updates accommodating the latest science in the accountability framework were essential to maintaining public trust in the integrity of the restoration effort.

Link for findings: https://cast.chesapeakebay.net/