U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF INSPECTOR GENERAL

Pollution Prevention

EPA's Presidential Green Chemistry Challenge Awards Program Lacks Adequate Support and Transparency and Should Be Assessed for Continuation

Report No. 15-P-0279 **September 15, 2015**

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Report Contributors:

Gabrielle Fekete
Jeffrey Harris
Natasha Henry
Lauretta Joseph

Abbreviations

ACS	American Chemical Society
CESSD	Chemistry, Economics and Sustainable Strategies Division
EPA	U.S. Environmental Protection Agency
FY	Fiscal Year
MTCO2Eq	Metric Tons of Carbon Dioxide Equivalent
OCSPP	Office of Chemical Safety and Pollution Prevention
OIG	Office of Inspector General
P2	Pollution Prevention
PART	Program Assessment Rating Tool
PGCCA	Presidential Green Chemistry Challenge Awards
PM	Performance Measure

Cover photo: Presidential Green Chemistry Challenge Awards on display. (EPA photo)

EPA Office of Inspector General
1200 Pennsylvania Avenue, NW (2410T)
Washington, DC 20460
(202) 566-2391
www.epa.gov/oig

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U.S. Environmental Protection Agency
Office of Inspector General

15-P-0279
September 15, 2015

At a Glance

Why We Did This Review

Our objective was to ensure that all contributions reported by the U.S. Environmental Protection Agency's (EPA's) Presidential Green Chemistry Challenge Awards Program to the agency's pollution prevention performance measures are adequately supported and transparent.

The Green Chemistry Awards are part of the EPA's Pollution Prevention (P2) Program. The P2 Program's mission is to prevent pollution at the source, promote the use of greener substances, and conserve natural resources.

Through the P2 Program, the EPA encourages and supports innovative changes in industrial production and use of raw materials. The Green Chemistry Awards program promotes the environmental and economic benefits of developing and using green chemistry by recognizing industry innovations.

This report addresses the following EPA goal or cross-agency strategy:

- *Ensuring the safety of chemicals and preventing pollution.*

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The full report is at: www.epa.gov/oig/reports/2015/20150915-15-P-0279.pdf

EPA's Presidential Green Chemistry Challenge Awards Program Lacks Adequate Support and Transparency and Should Be Assessed for Continuation

What We Found

Without data verification and transparency, the EPA risks reporting Green Chemistry Award results that are unreliable.

Contributions reported from the Green Chemistry Awards to EPA pollution prevention results are not adequately supported or transparent.

We found that all Green Chemistry Awards results are self-reported by award recipients. The EPA does not verify nor validate the results, and award recipients are not required to conduct any quality-assurance certification on results they report. Moreover, these self-reported results are included in the agency's summary of P2 Program accomplishments.

Green Chemistry Award results can be significant. For example, in fiscal year 2012 the EPA exceeded its target for metric tons of carbon dioxide equivalent (reduced or offset through pollution prevention) by slightly more than 200 percent. The success was attributed primarily to the results self-reported by Green Chemistry Award winners. Results achieved by award winners are from private companies and include international as well as domestic accomplishments. However, the EPA does not clearly state that the work from the Green Chemistry Awards was solely from private companies self-reported results and the agency lacks controls or procedures to separate or distinguish domestic results from international results. The inability to distinguish the results creates the risk of misrepresenting the source of the program's results and overstating results that would typically be perceived as exclusively benefiting the United States.

Some applicants are attracted to the Green Chemistry Awards Program because of the EPA support and the presidential title. Yet, we found that Green Chemistry Awards lack presidential support. According to the EPA, the awards program was endorsed by an earlier administration, but the program had not received that level of endorsement in several years. However, based on our findings, the EPA obtained renewed support from the White House Office of Science and Technology Policy.

Recommendations and Planned Corrective Actions

We recommend that the Assistant Administrator for Chemical Safety and Pollution Prevention discontinue using data from the Presidential Green Chemistry Challenge Awards Program in the EPA's P2 performance metrics until data quality controls are in place. The EPA should also assess the need and value of the awards program for supporting agency goals.

This report contains three resolved recommendations with corrective actions that meet the intent of the recommendations. Six recommendations are unresolved and need further planned corrective actions and/or an estimated completion date.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

THE INSPECTOR GENERAL

September 15, 2015

MEMORANDUM

SUBJECT: EPA's Presidential Green Chemistry Challenge Awards Program Lacks Adequate Support and Transparency and Should Be Assessed for Continuation
Report No. 15-P-0279

FROM: Arthur A. Elkins Jr.

TO: Jim Jones, Assistant Administrator
Office of Chemical Safety and Pollution Prevention

This is our report on the subject evaluation conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). This report contains findings that describe problems the OIG has identified and corrective actions the OIG recommends. This report represents the opinion of the OIG and does not necessarily represent the final EPA position. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

The EPA offices having primary responsibility for the issues evaluated in this report are the Office of Chemical Safety and Pollution Prevention's Office of Pollution Prevention and Toxics, and its Chemistry, Economics and Sustainable Strategies Division.

Action Required

In accordance with EPA Manual 2750, you are required to provide a written response to this report within 60 calendar days. You should include planned corrective actions and a projected completion date for unresolved recommendations. Your response will be posted on the OIG's public website, along with our memorandum commenting on your response. Your response should be provided as an Adobe PDF file that complies with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended. The final response should not contain data that you do not want to be released to the public; if your response contains such data, you should identify the data for redaction or removal along with corresponding justification.

We will post this report to our website at http://www.epa.gov/oig.

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Chapter 1
Introduction

Purpose

The U.S. Environmental Protection Agency's (EPA's) Presidential Green Chemistry Challenge Awards Program promotes the environmental and economic benefits of developing and using innovative green chemistry. The Office of Inspector General (OIG) wanted to ensure that all reported contributions from the program to EPA performance measures are adequately supported and transparent.

Background

The mission of the EPA's Pollution Prevention (P2) Program is to prevent pollution at the source, promote the use of greener substances, and conserve natural resources. The P2 Program's authority comes from the 1990 Pollution Prevention Act, which established a national policy to prevent or reduce pollution at the source, whenever feasible. Pursuant to the Act, in 1991 the EPA established a P2 office. Through P2, the EPA works to reduce pollution (before it occurs) by encouraging and supporting innovative changes in industrial production and use of raw materials. The Presidential Green Chemistry Challenge Awards Program is one of several initiatives within the EPA's P2 Program.

Presidential Green Chemistry Challenge Awards Program

The Presidential Green Chemistry Challenge Awards Program promotes the environmental and economic benefits of developing and using green chemistry. The program stemmed from the 1995 National Partnership for Reinventing Government Initiative and began issuing awards in 1996. Companies (including academic institutions and other nonprofit organizations) and their representatives are eligible to receive Presidential Green Chemistry Challenge Awards for outstanding or innovative source-reduction technologies.

The EPA manages the program in partnership with the American Chemical Society (ACS) and its Green Chemistry Institute. Agency activities associated with the Green Chemistry Awards include publicizing the call for nominations, determining whether applications meet program eligibility criteria, and assisting with the awards ceremony. ACS activities include reviewing and judging applications, and executing the annual awards ceremony.

In fiscal year (FY) 2015, the Green Chemistry Awards Program was allocated between $80,000 and $90,000 of the $13.9 million-proposed P2 budget. The program has five full-time equivalent positions. These employees perform work related to the Green Chemistry Awards as well as other duties.

Each year, the EPA solicits nominations for green chemistry technologies that must meet the program's six criteria:

1. It must be a green chemistry technology with a significant chemistry component.
2. It must include source reduction.
3. Its sponsor must be an eligible individual or organization.
4. It must have a significant milestone in its development within the past 5 years.
5. It must have a significant domestic United States component.
6. It must fit within at least one of the three focus areas of the program (Greener Synthetic Pathways, Greener Reaction Conditions, or the Design of Greener Chemicals).

During the EPA's screening process for nominations, the agency determines whether an application meets the timeframe and domestic component criteria of the program. A panel of technical experts convened by the ACS Green Chemistry Institute then judges the scientific quality of the applications. The panel passes the recommended winners back to the EPA, whereupon the agency then conducts an enforcement and compliance screening on the recommended winners and makes the final selections.

According to the agency, by advocating and recognizing green chemistry solutions to environmental problems, the awards program has significantly reduced hazards by encouraging nominees to:

- Design chemical products to be less hazardous to human health and the environment.
- Make chemical products from feedstocks, reagents and solvents that are less hazardous to human health and the environment.
- Design syntheses and other processes with reduced or no chemical waste.
- Design syntheses and other processes that use less energy or less water.
- Use feedstocks derived from annually renewable resources or from abundant waste.
- Design chemical products for reuse or recycling.
- Reuse or recycle chemicals.

Green Chemistry Award Results

From the start of the awards program in 1996 through 2014, the EPA has received 821[1] technologies that met the program's eligibility criteria. The number of applications varies on a yearly basis, but the EPA averages about 43 eligible technologies each year.

[1] Although the green chemistry website states that 823 eligible technologies have been received, the EPA data available show only 821 eligible technologies. We used 821 for the purposes of our evaluation.

Since 1996, the EPA has recognized 98 winners. Through FY 2013, these winners were credited with significant annual pollution prevention achievements that include:

- The elimination of 826 million pounds of hazardous chemicals and solvents.
- Saving 21 billion gallons of water.
- The elimination of 7.8 billion pounds of carbon dioxide equivalents released into air.

In 2013, an award winner developed a product that reduced the amount of water needed in paint by 30 percent.

The EPA includes the results from program award winners in several agency performance measures (PMs). According to the EPA, the agency only reports realized results, not potential results in its achievement of the following measures:

- PM 262—Gallons of water reduced through pollution prevention.
- PM 263—Business, institutional and government costs reduced through pollution prevention.
- PM 264—Pounds of hazardous materials reduced through pollution prevention.
- PM 297—Metric tons of carbon dioxide equivalent (MTCO2Eq) reduced or offset through pollution prevention.

The EPA highlights the results from Green Chemistry Award winners as significantly contributing toward helping the agency meet its performance goals or targets. Green Chemistry Award Program winners are significant contributors to the agency's progress on pollution prevention. Table 1 shows some of the reported impacts the Green Chemistry Awards had on the agency's FY 2012 performance results.[2] The Green Chemistry Awards Program appears to contribute one-third to two-thirds of the total results for three pollution-prevention activities.

Table 1: FY 2012 Green Chemistry Award contributions to agency results

Agency measure	EPA reported results	Contributions derived from Green Chemistry Awards	Percent contribution from Green Chemistry Awards
PM 263	$626 million	$231 million	37%
PM 264	1,711 million lbs.	626 million lbs.	37%
PM 297	5.26 MTCO2Eq	3.5 MTCO2Eq	66%

Source: OIG analysis of agency and program data.

[2] FY 2012 is the most current year for complete data from the Green Chemistry Awards Program.

Prior Reports

The EPA's P2 measurement and reporting results were reviewed in EPA OIG Report No. 09-P-0088, *Measuring and Reporting Performance Results for the Pollution Prevention Program Need Improvement*, issued January 28, 2009. The report found that the P2 Program's FY 2006 Program Assessment Rating Tool (PART)[3] performance measures were not designed to report on the program's impacts to human health and the environment.

In addition, the report found that the P2 Program's verification and validation procedures did not ensure the accuracy of performance data. P2 Program managers had no assurance that performance results data obtained from voluntary partnerships with industry and other organizations were accurate. The program's FY 2006 performance results were not reported consistently and contained inaccuracies. The agency agreed with all OIG recommendations and completed its corrective action plan.

More recently, the EPA OIG reviewed EPA's P2 grants program in Report No. 15-P-0276, *EPA Needs Accurate Data on Results of Pollution Prevention Grants to Maintain Program Integrity and Measure Effectiveness of Grants*, issued September 4, 2015. The report found that the EPA is unable to determine the extent to which P2 grants achieved pollution prevention goals because it failed to effectively implement quality control guidance and practices when compiling P2 grant results. The EPA agreed with our recommendations to develop and implement stronger controls to ensure accurate and consistent reporting of results.

Responsible Offices

The EPA's Office of Chemical Safety and Pollution Prevention is responsible for the issues evaluated in this report; specifically, the Office of Pollution Prevention and Toxics, and its Chemistry, Economics and Sustainable Strategies Division (CESSD).

Scope and Methodology

We conducted this performance audit from October 2014 through September 2015. We conducted our work in accordance with generally accepted government auditing standards. Those standards require that we plan and perform the audit to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objectives. We believe that the evidence obtained provides a reasonable basis for our results based upon our objectives.

[3] PART was an Office of Management and Budget questionnaire designed to help assess the management and performance of programs. It was used to evaluate a program's purpose, design, planning, management, results and accountability to determine the program's overall effectiveness. PART was discontinued in 2009.

We reviewed relevant materials, including laws, policies, procedures and reports. We determined the universe of Green Chemistry Award applications from 1996 through 2014. We reviewed the program's files for a sample of applicants and winners. Specifically, we assessed the requirements under the program and documentation provided, and met with the ACS to obtain information on its role. We also analyzed the universe of 98 award winners to determine whether the winners were companies based solely in the United States, or whether the companies were based in the United States with additional international facilities.

We interviewed key agency staff from two divisions within the Office of Pollution Prevention and Toxics. One interview was with the CESSD's Industrial Chemistry Branch Chief. We also interviewed the Environmental Assistance Division's Planning and Assessment Branch Chief. In both instances, we obtained information about the selection process, data verification, performance measurement, and the budget.

We reviewed the program's goals, measures and any changes over time, with a particular focus on how program results are calculated and included in EPA overall goals and measures. We also reviewed the EPA's 2009 draft *Guidance Document for Green Chemistry Matrix Entries*.

Chapter 2
Green Chemistry Award Results Lack Controls and Transparency

Reported contributions from the Green Chemistry Awards to EPA pollution prevention performance measures are not adequately supported or transparent. We found that all Green Chemistry Awards results are self-reported by award recipients. The EPA does not verify nor validate the results, and award recipients are not required to conduct any quality-assurance certification on results they report.

The EPA does not contribute to the generation of Green Chemistry Awards results. Furthermore, the EPA does not clearly state that the results from the Green Chemistry Awards are based solely on work from private companies, and the agency lacks controls or procedures to separate or distinguish domestic results from international results from private companies. This inability to distinguish the results creates the risk of misrepresenting the source of the program's results and overstating results that would typically be perceived as exclusively benefiting the United States.

In addition, despite the program's name, we found the Green Chemistry Awards lack presidential support. According to CESSD staff, the awards program was endorsed by an earlier administration, but the agency has not documented a current presidential endorsement.

EPA Lacks Controls for Green Chemistry Awards

The EPA has not articulated a program design for the Green Chemistry Awards to achieve its goals. A key component to transparent and successful program operations is a system of internal controls.[4] The EPA lacks a system for measuring, reporting and monitoring performance of the Green Chemistry Awards Program.

The agency has a management strategy for achieving its pollution prevention goals through a myriad of individual programs. However, the EPA does not have a specific plan or a road map to accomplish desired outcomes for the Green Chemistry Awards Program. The agency could not provide any annual or strategic plans that guide implementation of the Green Chemistry Awards Program. There are no strategies or plans that establish linkages to demonstrate how or when the program will be evaluated.

[4] "Internal controls" involves the processes and procedures for planning, organizing, directing and controlling program operations; and the system established for measuring, reporting and monitoring program performance.

According to EPA staff, there is insufficient time and resources for staff to assess the program for possible improvements in internal controls. Previously, the program did not have a full-time staff person to handle day-to-day management of the program. In July 2015, the Industrial Chemistry Branch for CESSD told us they hired a full-time staff person to oversee day-to-day management of the program and to conduct data analysis.

EPA Does Not Verify Green Chemistry Awards Data

The EPA does not verify data submitted by award winners. Examples of weaknesses in this process include the following:

- To describe the guidelines that should be used for entering applicant information, the agency has a draft *Guidance Document for Green Chemistry Matrix Entries.* However, we found no evidence that the EPA is using the document at this time, or that the agency has reviewed and updated the guidance document since 2009.

- The lack of program controls also includes the absence of sufficient verification of applicant data. Specifically, the agency does not generally question or apply independent analysis to the data received. The Green Chemistry Awards Program requires applicants to submit data about the benefits or results from the nominated green chemistry technology. Once award winners are identified from the review process, the agency includes the self-reported environmental results data by the winners in the EPA's P2 performance results. The agency does not have controls to ensure the validity of self-reported numbers. There is also no established system for the agency to return to awardees in order to obtain updated information. This lack of program controls creates a risk to the integrity of EPA-reported results.

- The agency said that applications containing suspicious data, or data that is suspected to be unreliable, do not become program finalists. However, we found no evidence to support the EPA performing verification checks on data. We also found that the agency lacks a quality-control process to routinely certify data accuracy. In addition, the agency said judges may contact applicants to obtain more information about the submitted data and to clarify questions about the technology. However, we found no evidence that this is a control being used by the program.

Green Chemistry Awards Program Is Not Transparent About the Source of Its Results

The field of green chemistry is global in nature. As a result, many Green Chemistry Awards applicants operate worldwide. Specifically, we found that from the program's commencement through 2014, there were 57 out of 98 past

winners with an international component to their work.[5] Therefore, applicant results reported to the awards program may contain data that reflects benefits to non-U.S. entities.

However, non-U.S. results are not distinguished from U.S. results in EPA reporting metrics. The agency said it has the ability to separate domestic results from international results, but we found no evidence that this is occurring. If the Green Chemistry Awards include international results to achieve domestic goals, this should be clearly designated to enhance program transparency and to reduce the risk of overstating program results that would typically be perceived as exclusively benefiting the United States.

Furthermore, data collected for this program largely, if not fully, result from work and resources invested by private companies. Results from the Green Chemistry Awards Program are not a direct result of an EPA investment. It is therefore inappropriate for the EPA to take credit for the results of activities performed by predominantly non-EPA parties. The agency needs to be more transparent about the source of its results and the use of private company data to achieve EPA measures.

There Is No Evidence of Presidential Recognition

Applicants are generally interested in the Green Chemistry Awards because of the EPA support and the presidential title. When the Green Chemistry Awards Program issued the first round of awards in 1996, there was evidence of White House support for the initiative. One awardee interviewed said they received a letter from a former President congratulating them on their winning technology. However, this same awardee said there was no presidential acknowledgement for a more recent win. EPA staff confirmed that the program formerly had more involvement with the White House Council on Environmental Quality and the White House Office of Science and Technology Policy. In earlier years a presidential message was initiated by staff in one of those two offices.

In July 2015, the Green Chemistry Awards obtained renewed support from the White House Office of Science and Technology Policy, which also sent a representative to the 2015 Green Chemistry Awards Ceremony.

Conclusion

The agency should discontinue using data from Green Chemistry Awards in the EPA's P2 performance metrics until controls for ensuring data quality are implemented and the agency determines whether this program should continue in its current form. If the agency continues this program concept, it should develop a program model that communicates how Green Chemistry Awards contribute to P2

[5] "International component" means a company has both domestic and international facilities.

goals, and include a method for developing internal metrics that track program outputs and provide future direction for the awards.

Recommendations

We recommend that the Assistant Administrator for Chemical Safety and Pollution Prevention:

1. Discontinue the use of Green Chemistry Awards data in EPA pollution prevention performance metrics until controls over data quality are implemented.

2. Assess the need and value of the Green Chemistry Awards Program for supporting pollution prevention or other agency goals and measures. If the agency determines that the program is useful, should be continued, and elects to use the data to support agency goals, the EPA should:

    a. Implement a system to track and analyze data and environmental results collected by the program.

    b. Develop a program feedback system that includes a process for gathering information on the subsequent impact(s) of projects that have received awards, and includes tracking data to evidence the long-term benefits of green chemistry innovations.

    c. Improve data integrity by ensuring that domestic and international benefits are separate and distinct when being reported.

    d. Develop program-specific goals, objectives and measures.

    e. Link the program's activities to EPA and Office of Chemical Safety and Pollution Prevention strategic plan goals and performance measures.

    f. Create a program-specific logic model that reflects outputs and short-, intermediate- and long-term outcomes of the program.

    g. Periodically review the program to evaluate results and to assess progress in achieving goals.

3. Obtain ongoing, current presidential endorsement of the Green Chemistry Awards Program or rename the program.

Agency Comments and OIG Evaluation

The agency commented on our findings and conclusions and, where appropriate, we made changes in our report. The agency agreed with Recommendations 2b, 2g and 3, and provided corrective actions that we agreed with. Those three recommendations are considered resolved. Recommendation 3 will be closed upon issuance of the report.

The OIG reviewed documentation that the agency provided regarding Recommendation 2e and concluded that the intent of the recommendation can be met by the draft pollution prevention program logic model once it is finalized. This recommendation is currently unresolved until we receive a proposed completion date for the final P2 logic model.

The agency disagreed with Recommendations 1, 2c, 2d and 2f, which are unresolved. During our exit conference to discuss the agency's comments, the EPA said it is evaluating Recommendations 1, 2a, 2c, 2d and 2f to determine possible corrective actions.

The agency's full response and our embedded comments are in Appendix A.

Status of Recommendations and Potential Monetary Benefits

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in $000s)	
Rec. No.	Page No.	Subject	Status[1]	Action Official	Planned Completion Date	Claimed Amount	Agreed-To Amount
1	9	Discontinue the use of Green Chemistry Awards data in EPA pollution prevention performance metrics until controls over data quality are implemented.	U	Assistant Administrator for Chemical Safety and Pollution Prevention			
2	9	Assess the need and value of the Green Chemistry Awards Program for supporting pollution prevention or other agency goals and measures. If the agency determines that the program is useful, should be continued, and elects to use the data to support agency goals, the EPA should:		Assistant Administrator for Chemical Safety and Pollution Prevention			
		a. Implement a system to track and analyze data and environmental results collected by the program.	U				
		b. Develop a program feedback system that includes a process for gathering information on the subsequent impact(s) of projects that have received awards, and includes tracking data to evidence the long-term benefits of green chemistry innovations.	O		7/2016		
		c. Improve data integrity by ensuring that domestic and international benefits are separate and distinct when being reported.	U				
		d. Develop program-specific goals, objectives and measures.	U				
		e. Link the program's activities to EPA and Office of Chemical Safety and Pollution Prevention strategic plan goals and performance measures.	U				
		f. Create a program-specific logic model that reflects outputs and short-, intermediate- and long-term outcomes of the program.	U				
		g. Periodically review the program to evaluate results and to assess progress in achieving goals.	O		9/2016		
3	9	Obtain ongoing, current presidential endorsement of the Green Chemistry Awards Program or rename the program.	C	Assistant Administrator for Chemical Safety and Pollution Prevention	7/2015		

[1] O = Recommendation is open with agreed-to corrective actions pending.
C = Recommendation is closed with all agreed-to actions completed.
U = Recommendation is unresolved with resolution efforts in progress.

Appendix A

Agency Response to Draft Report and OIG Evaluation

July 16, 2015

MEMORANDUM

SUBJECT: Response to Office of Inspector General Draft Report No. OPE-FY15-0003 "EPA's Presidential Green Chemistry Challenge Awards Program Lacks Adequate Support and Transparency and Should Be Assessed for Continuation," dated May, 26, 2015

FROM: James J. Jones
Assistant Administrator for Chemical Safety and Pollution Prevention

TO: Arthur A. Elkins, Jr.
Inspector General

Thank you for the opportunity to respond to the issues and recommendations in the subject audit report. This memo summarizes the agency's overall position, and explains our position on each of the report recommendations. For those report recommendations with which the agency agrees, we have provided either intended corrective actions and estimated completion dates, or reasons for the difficulty in providing intended corrective actions and estimated completion dates at this time. For those report recommendations with which the agency does not agree, we have explained our position, and proposed alternatives to recommendations. For your consideration, we have included a Technical Comments Attachment to supplement this response.

AGENCY'S OVERALL POSITION

The Presidential Green Chemistry Challenge Awards (PGCCA) are an effective tool for publicly acknowledging innovative technologies that help solve important environmental problems. EPA believes the PGCCA serve a critical role in raising the profile, importance, and credibility of green chemistry technologies. For a relatively minimal investment, the PGCCA showcase and highlight the tremendous pollution prevention potential of innovative technologies once commercialized and in the marketplace.

EPA will continue to support the PGCCA and include the results in its Pollution Prevention program's annual and strategic planning goals, objectives and measures. OCSPP has a robust system for capturing and analyzing environmental results data, consistent with the award nomination process and post-nomination results reporting. EPA agrees with OIG on the importance of investment in a data and results system and an enhanced feedback system on the impacts of the PGCCA.

EPA disagrees, however, with several statements and conclusions in the draft report that appear to be based on inaccurate data or a misunderstanding about the PGCCA. We request that these

statements be revised to reflect our discussions and information which was provided to the OIG before the report is finalized. Please see Attachment A: Technical Comments for further detail. In light of the need for these changes to the report, EPA requests that the OIG reconsider recommendations 1, 2a, 2c, 2d, 2e, and 2f.

AGENCY'S RESPONSE TO REPORT RECOMMENDATIONS

Agreements

No.	Recommendation	Corrective Action	Estimated Completion Date
2b	Develop a program feedback system that includes a process for gathering information on the subsequent impact(s) of projects that have received awards, and includes tracking data to evidence the long-term benefits of green chemistry innovations.	EPA agrees with the value of program feedback. OCSPP will utilize several mechanisms for gathering information on impacts of technologies that have received awards, including site visits and meetings/conferences with award winners and stakeholders	July 2016
OIG Response to Recommendation 2b: The OIG accepts the corrective action. Recommendation is resolved.			
2g	Periodically review the program to evaluate results and to assess progress in achieving goals.	OCSPP will conduct periodic program reviews, the first of which will be completed by September 30, 2016.	September 2016
OIG Response to Recommendation 2g: The OIG accepts the corrective action. Recommendation is resolved.			
3	Obtain ongoing, current presidential endorsement of the Green Chemistry Awards Program or rename the program.	In June 2015, OCSPP invited the Council for Environmental Quality and the White House Office of Science and Technology Policy (OSTP) to participate in the 2015 and future PGCCA ceremonies. Thomas Kalil, OSTP, gave the Presidential message at the PGCCA ceremony on July 13, 2015.	July 2015 (Completed).
OIG Response to Recommendation 3: The OIG accepts the corrective action. Recommendation is resolved and will be closed upon report issuance.			

Disagreements

No	Recommendation	Corrective Action	Estimated Completion Date
1	Discontinue the use of Green Chemistry Awards data in EPA pollution prevention performance metrics until controls over data quality are implemented.	OCSPP disagrees and requests that the OIG reconsider this recommendation. OCSPP has controls as per methodology in written green chemistry guidance and pollution prevention SOPs. We therefore do not agree that discontinuing the use of awards data in pollution prevention metrics is warranted.	
OIG Response to Recommendation 1: The data from the PGCCA is third-party data that the EPA does not contribute to in any form. OCSPP cannot assure that the reported results are valid, and attributing the data to the EPA's pollution prevention results is misleading and could be perceived as fraudulent.			
2a	Implement a system to track and analyze data and environmental results collected by the program.	OCSPP disagrees and requests that the OIG reconsider this recommendation. OCSPP analyzes data and environmental results from the PGCCA, and has a system for measuring, monitoring, and reporting performance - the Green Chemistry Matrix system. However, due to declining program resources over the years, EPA has not been able to enter the technology data every year and is considering more regular operation of the Green Chemistry Matrix system, as resources permit.	
OIG Response to Recommendation 2a: If OSCPP intends to use data from the Green Chemistry awards program in their performance metrics, then it needs to have an appropriate, functioning, and regularly operated system in place to track and analyze data and environmental results collected. The Green Chemistry Matrix is not sufficient to meet the intent of our recommendation. The matrix needs to be updated to reflect changes to the program, and additional steps need to be added to show what steps should always be taken to verify third-party data.			
2c	Improve data integrity by ensuring that domestic and international benefits are separate and distinct when being reported.	OCSPP requests that the OIG reconsider this recommendation. As with other EPA voluntary and regulatory programs, green chemistry is a multi-media and	

		'without borders' program that promotes source reduction by businesses, e.g., reducing toxic chemical use and global levels of greenhouse gases.	
OIG Response to Recommendation 2c: OCSPP staff informed us that they have the ability to distinguish between domestic and international benefit data. The OIG continues to recommend that OCSPP separate domestic and international benefit data in their internal EPA measures and metrics to increase transparency and to obtain information about programmatic impact.			
2d	Develop program-specific goals, objectives and measures.	OCSPP disagrees and requests that the OIG reconsider this recommendation. OCSPP has specific pollution prevention goals, objectives, and measures that encompass green chemistry and the PGCCA. They are articulated in EPA Strategic Plans, EPA Annual Performance Reports, and pollution prevention SOPs. If OIG has specific suggestions for the PGCCA program beyond the efforts previously discussed and described, OCSPP will consider them.	
OIG Response to Recommendation 2d: PGCCA does not have any formal goals, objectives and measures. This hinders the EPA's ability to assess the PGCCA's progress in meeting its stated intent. The OIG found that the only measures generated and utilized by the program relate to the EPA's overall P2 accomplishments and do not speak to the functioning of the PGCCA program.			
2e	Link the program's activities to EPA and Office of Chemical Safety and Pollution Prevention strategic plan goals and performance measures.	OCSPP disagrees and requests that the OIG reconsider this recommendation. The program's activities are already included in the Pollution Prevention strategic goals and performance measures in the EPA Strategic Plans (Goal 4), annual President's Budget submissions, and Annual Performance Reports.	
OIG Response to Recommendation 2e: The OIG re-reviewed the information that OCSPP shared with us and believes that the linkage between the PGCCA and OCSPP programs is demonstrated within the overall P2 logic model. This recommendation is unresolved pending OCSPP providing a corrective action showing the finalization of the P2 logic model.			

2f	Create a program-specific logic model that reflects outputs and short-, intermediate-, and long-term outcomes of the program.	OCSPP disagrees and requests that the OIG reconsider this recommendation. OCSPP has a Pollution Prevention (P2) logic model that includes the PGCCA as a key component, with the PGCCA specifically identified in both the major portions of the 2013 version of the P2 logic model – fostering development of improved products, processes, and practices; and promoting increased use of improved products, processes, and practices.	
OIG Response to Recommendation 2f: While comprehensive in nature, grouping all P2 programs into one logic model does not provide specific direction for PGCCA. The development of a program-specific logic model would aid OCSPP in developing the formal goals, measures and objectives that are recommended in Recommendation 2d. OCSPP could work with the EPA's internal program evaluation group to develop a program-specific logic model. Additionally, we can provide a sample logic model to OCSPP if desired.			

CONTACT INFORMATION

If you have any questions regarding this response, please contact Janet L. Weiner, OCSPP's Audit Liaison at (202) 564-2309.

Appendix B

Distribution

Office of the Administrator
Assistant Administrator for Chemical Safety and Pollution Prevention
Agency Follow-Up Official (the CFO)
Agency Follow-Up Coordinator
General Counsel
Associate Administrator for Congressional and Intergovernmental Relations
Associate Administrator for Public Affairs
Deputy Assistant Administrator for Chemical Safety and Pollution Prevention
Director, Office of Pollution Prevention and Toxic Substances, Office of Chemical Safety and Pollution Prevention
Audit Follow-Up Coordinator, Office of Chemical Safety and Pollution Prevention