



U.S. ENVIRONMENTAL PROTECTION AGENCY

OFFICE OF INSPECTOR GENERAL

EPA Can Help Consumers Identify Household and Other Products with Safer Chemicals by Strengthening Its “Design for the Environment” Program

Report No. 14-P-0349

September 9, 2014



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Abbreviations

DfE	Design for the Environment
EPA	U.S. Environmental Protection Agency
OIG	Office of Inspector General
PM	Performance Measure

Cover photo: EPA photo illustrating the use of household cleaners.
(Design for the Environment website)

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At a Glance

Why We Did This Review

We conducted this review of the U.S. Environmental Protection Agency's (EPA's) "Design for the Environment" (DfE) Safer Product Labeling Program to determine how effectively the program highlights safer products for consumer use.

For more than 15 years, the DfE Safer Product Labeling Program has labeled products that meet the criteria to be considered safer for families and the environment. According to the EPA, the DfE logo means that the product contains only those ingredients that pose the least concern among chemicals in their class. DfE products include car care products, carpet cleaners, dish and hand soaps, floor care products, laundry detergents, and glass cleaners.

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

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

Send all inquiries to our public affairs office at (202) 566-2391 or visit www.epa.gov/oig.

The full report is at: www.epa.gov/oig/reports/2014/20140909-14-P-0349.pdf

EPA Can Help Consumers Identify Household and Other Products with Safer Chemicals by Strengthening Its "Design for the Environment" Program

What We Found

We found that the current DfE logo does not adequately communicate to the consumer that the product is a safer product. We also found a risk that an EPA endorsement of DfE products may be implied by the current logo, but EPA endorsement is not allowed. The EPA also lacks sufficient controls over the use of its DfE logo by former program participants. This can be misleading for consumers and is a violation of the DfE partnership agreement.

Strengthened controls in the DfE program can help consumers better identify safer products.

We also found that the EPA asserts that DfE products are cost effective, but this has not been determined or reviewed. Further, there are weaknesses in both former and proposed performance measures used by the DfE program and the EPA cannot accurately determine the program's impact on pollution prevention.

Addressing the issues noted should further EPA goals, better promote safer products, and support DfE brand recognition among consumers.

Recommendations and Agency Planned Corrective Actions

We recommend that the Assistant Administrator for Chemical Safety and Pollution Prevention improve the DfE logo, periodically review program participants' compliance with partnership agreements and address noncompliance with those agreements, remove statements on the EPA's website that imply that DfE products are cost effective, and improve performance measurement. The EPA agreed with our recommendations and proposed acceptable corrective actions. The agency fully addressed one recommendation and it is therefore closed, while the remaining recommendations are resolved with corrective actions underway.

Noteworthy Achievements

DfE has evaluated and approved more than 2,500 products to carry the DfE logo. The EPA updated the Safer Chemical Ingredients List in 2014, adding over 50 chemical ingredients and bringing the number of safer chemical ingredients to approximately 650. DfE has also developed a new database system that will enable the agency to better manage chemical, partner and product information in a cloud-based system.



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

THE INSPECTOR GENERAL

September 9, 2014

MEMORANDUM

SUBJECT: EPA Can Help Consumers Identify Household and Other Products with Safer Chemicals by Strengthening Its “Design for the Environment” Program
Report No. 14-P-0349

FROM: Arthur A. Elkins Jr.

A handwritten signature in black ink, appearing to read "Arthur A. Elkins Jr.", is written over the printed name.

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 office having primary responsibility for the issues evaluated in this report is the Office of Chemical Safety and Pollution Prevention’s Office of Pollution Prevention and Toxics.

Action Required

You are not required to provide a written response to this final report because you provided agreed-to corrective actions and planned completion dates for the report recommendations. The OIG may make periodic inquiries on your progress in implementing these corrective actions. Should you choose to provide a final response, we will post your response on the OIG’s public website, along with our memorandum commenting on your response. You should provide your response as an Adobe PDF file that complies with the accessibility requirements of Section 508 of the Rehabilitation Act of 1973, as amended.

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

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Purpose

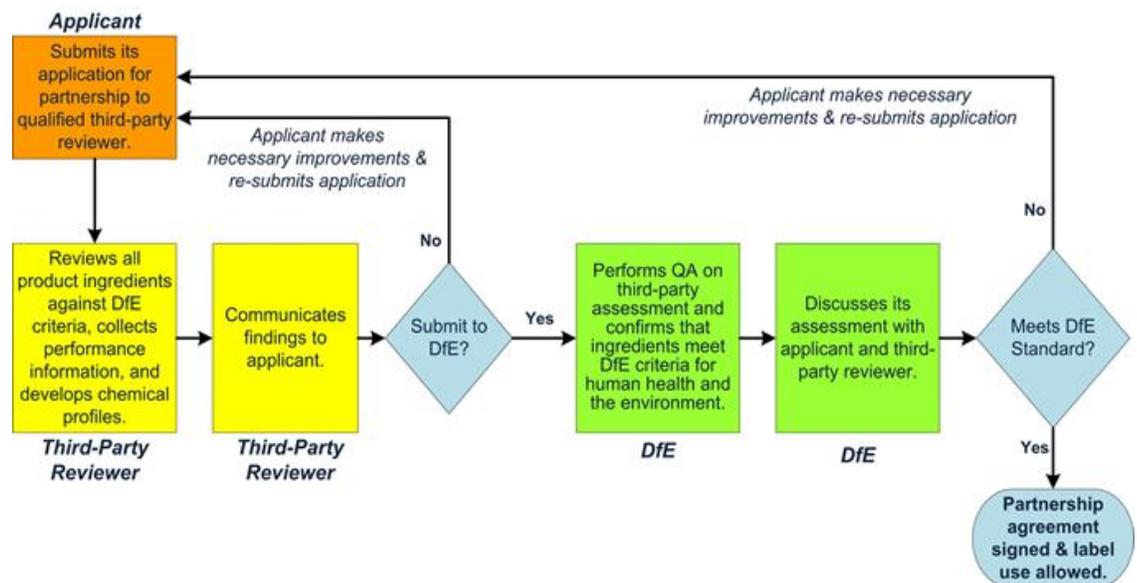
Our objective was to determine how effectively the U.S. Environmental Protection Agency's (EPA's) "Design for the Environment" (DfE) Safer Product Labeling Program is highlighting safer products for consumer use.

Background

The DfE program is one of the EPA's pollution prevention programs. The EPA's pollution prevention programs are designed to reduce or eliminate waste at the source by modifying production processes, promoting the use of non-toxic or less-toxic substances, implementing conservation techniques, and re-using materials. The DfE achieves pollution prevention by promoting safer product design and green chemistry. Based on data reported by the EPA, DfE is being reported as the agency's most successful pollution prevention program in reducing reported pounds of hazardous materials—the DfE alone accounted for nearly half of all EPA-claimed pollution reductions in recent years.

The DfE program incentivizes companies to manufacture products that contain safer chemicals than other alternative products on the market. Companies can join the program and label their products as DfE-certified if they have met the program's standards. The process used by the EPA to qualify products for the DfE labeling program is illustrated in figure 1.

Figure 1: DfE Product Qualification Process



Source: DfE program.

The DfE logo, as shown in figure 2, is the EPA’s label for safer chemical products. For over 15 years, the DfE Safer Product Labeling Program has labeled products that meet the criteria to be considered safer for families and the environment. According to the EPA, when the DfE label appears on a product, it means that each ingredient in the product has been screened for potential human health and environmental effects and that the product contains only those ingredients that pose the least concern among chemicals in their class. DfE-labeled products include all-purpose cleaners, dishwasher detergents, car care products, carpet cleaners, dish and hand soaps, floor care products, laundry detergents and softeners, leather cleaners, toilet bowl and tub/tile cleaners, window/glass cleaners, and wood cleaners.

Figure 2: DfE Logo



Source: DfE website.

Applicants for the DfE label must fully disclose all ingredients to the DfE program and a qualified third-party profiler. Currently there are two third-party profiler companies. For each DfE product, a third-party profiler compiles hazard information on each chemical ingredient, including its detailed structure, physical-chemical properties, human health and environmental toxicology, and regulatory status. A product is only allowed to carry the DfE label if each ingredient is among the safest in its ingredient class. Additionally, the product as a whole has to meet safety criteria, qualify as high performing, and be packaged in an environmentally friendly manner. Once products are approved by DfE, each manufacturer must sign a partnership agreement that outlines the program’s requirements, including audits and product renewals.

Responsible Office

The EPA office having primary responsibility for the DfE program is the Office of Chemical Safety and Pollution Prevention’s Office of Pollution Prevention and Toxics.

Noteworthy Achievements

DfE has evaluated and approved more than 2,500 products to carry the DfE logo. In 2012, the EPA developed the Safer Chemical Ingredients List, which contains chemicals that meet the criteria of the DfE Safer Product Labeling Program. In 2014, the EPA updated the list by adding over 50 chemicals, bringing the number of safer fragrance chemical ingredients to over 150 and the total number of safer chemical ingredients to approximately 650.

Additionally, DfE has developed the “DfE Product Portal” database, providing pertinent program-related information within one internal database system. According to the EPA, the primary function of this database is to manage chemical, partner and product information in a cloud-based system. The new

system will address shortcomings of the prior, outdated database and address functional needs of the program. For example, the database will lend itself to faster review of partnership applications and access to historical data related to partnership history and decisions.

Scope and Methodology

We conducted our work from November 2013 through July 2014. We conducted this performance audit 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 audit objectives. We believe that the evidence obtained provides a reasonable basis for our findings and conclusions based on our audit objectives.

We reviewed relevant materials, including laws, policies, procedures and reports. We documented the universe of DfE consumer products. We randomly selected a sample item from each of the eight product categories that had 25 or more approved products and we reviewed the files held by the EPA for those products. Specifically, we reviewed the requirements under the program, documentation provided by the third-party profilers, audit results and product labels. We also reviewed a sample of 30 products to determine compliance with label requirements.

We interviewed key agency staff, including the DfE Program Chief and the staff charged with reviewing third-party profiler decisions, developing alternatives assessments and new sector standards, reporting on performance measures, and promoting the DfE program. We interviewed the head toxicologists at the two third-party profilers who conduct the product assessments for the DfE program.

We reviewed the program's goals and measures, with particular focus on how the measures are calculated and reported over time. We conducted a brief inspection at the retail-store level to assess consumer ability to easily detect safer product labeling information.

Results of Review

The DfE program intends to help consumers make wise choices by identifying safer products. However, we found issues in the design and use of the program logo that impede brand recognition. There is also the potential for consumers to draw the interpretation that EPA endorses DfE products, which is not allowed, and potential misuse of the logo by former program participants. Also, the agency asserts that DfE products are cost effective, but this has not been determined or reviewed. Further, we found weaknesses in how the performance of the DfE program is measured.

EPA's DfE Goals Can Be Enhanced Through Logo Improvements

The EPA states that the DfE label helps consumers easily choose safer products. However, we identified factors in the design and placement of the label that could impede product promotion and DfE brand recognition. We also found issues potentially impacting the integrity of the DfE logo.

The current DfE logo does not adequately communicate to the consumer that the product is a safer product. DfE has acknowledged that the DfE mission to promote “safer chemical based products” is not conveyed by the current logo. The agency received stakeholder feedback showing that the logo does not fully and effectively communicate DfE’s mission. Furthermore, the manufacturers’ typical placement of the DfE label on the back of its products inhibits the promotion of “safer chemical based products.” Consumers would need to pick up, turn around and examine a product to see the DfE labeling.

The prominent use of “U.S. EPA” on the logo (see figure 2) may lead consumers to draw the interpretation that EPA endorses products that have the label. DfE program documents state that EPA/DfE recognition does not constitute endorsement of a product. According to the DfE partnership agreement, partners agree to include on any advertising of the DfE-qualifying products an endorsement disclaimer.¹ The disclaimer disavows any EPA product endorsement. Additionally, partners are to work with the EPA to find an appropriate place (e.g., company website) to include the disclaimer.

According to EPA staff, because of the length of the disclaimer statement, most manufacturers place the disclaimer on their websites. To test this, we randomly sampled 30 DfE products and found this language was not included on the webpages for all but one of the products sampled. Therefore, there is a substantial risk that an EPA endorsement of DfE products is implied and could be so perceived by consumers. The EPA may need to strengthen controls in this area or remove the “U.S. EPA” from the DfE logo to eliminate any perceived EPA endorsement.

The EPA also lacks sufficient controls over the use of its DfE logo by former DfE program participants. We found one instance in which the DfE logo was used on a website of a DfE partner that is no longer in the program. We also found a past program participant that acknowledges on its website that it no longer carries the DfE label on its products but that many of its products are still “DfE recognized.”

¹ Required Disclaimer: EPA/DfE recognition does not constitute endorsement of this product. The Design for the Environment logo signifies that the formula for this product, as «Company Partner» has represented it to the EPA, contains ingredients with more positive health and environmental characteristics than conventional cleaners. EPA/DfE relies solely on «Company Partner», its integrity and good faith, for information on the composition, ingredients, and attributes of this product. EPA/DfE has not independently identified, i.e., via chemical analysis, the ingredients in the product formula, nor evaluated any of a Company’s noningredient claims. EPA/DfE provides its evaluation only as to the environmental and human health characteristics of the product, based on currently available information and scientific understanding.

This is misleading for consumers, inconsistent with the program's purpose of safe product promotion, and a violation of the DfE partnership agreement.

We also found the logo for the Safe Detergent Stewardship Initiative has a design similar to the DfE program logo. Since the two programs have separate and distinct eligibility requirements, it is important that their logos also be distinct to avoid confusing or misleading consumers.

EPA's DfE Website Has Unsupported Program Benefit Claims

The EPA's website states that:

EPA's Design for the Environment program helps consumers, businesses, and institutional buyers identify cleaning and other products that perform well, are cost-effective, and are safer for the environment.

However, the DfE program does not have controls in place to ensure one of these three claims—cost effectiveness. The DfE review process includes an assessment of each of the ingredients in a potential product to ensure that the product contains only those ingredients that pose the least concern among chemicals in their class. We found that the files documenting the process for accepting partners into the DfE program were adequate and maintained. However the agency does not have evidence in its files to support that DfE products are cost effective. The current review process to qualify products does not include any review of cost effectiveness. The agency should ensure that language describing the program's benefits is accurate and not misleading.

Weaknesses Exist in EPA's Measurement of DfE Program Results

The EPA has used results from the DfE program to support two of the agency's Government Performance and Results Act measures. Specifically:

- Performance Measure (PM) 264, *pounds of hazardous materials reduced through pollution prevention.*
- PM P25, *percent increase in use of safer products.*

However, DfE results data are not appropriate or valid to support either measure. This is significant because DfE accounted for nearly half of all EPA-claimed hazardous material reductions (PM 264) in recent years.

DfE's contribution to PM 264 was calculated by multiplying the average annual production volume of safer products by the number of DfE labeled products at year end. However, the use of average production volume is inconsistent with the definition for PM 264. PM 264 is supposed to measure the reduction of hazardous materials, but the DfE metric focused on production of safer chemicals. Thus, this

metric did not reflect the amount of hazardous materials reduced as reported under PM 264. In addition, an outdated formula was used to generate the DfE average production volume. The formula was based on data from eight participating manufacturers in 2006, but as of February 2014 half of those manufacturers were no longer partners in the DfE program.

DfE program results data were also used to show EPA progress on the percent increase in the use of safer products (PM P25). However, as noted above, the DfE program measured the overall production of products with safer chemicals and not changes in the use of safer products. Therefore, using DfE program results data to support PM P25 was inappropriate.

During our review, the EPA modified how DfE results were reported. DfE results have been removed from the agency's performance measure that reports *pounds of hazardous materials reduced through pollution prevention*. The agency will also no longer use calculated average production volume of safer chemicals in support of any measures. The agency has decided to no longer report on the measure of *percent increase in use of safer products*.

Beginning with fiscal year 2015, a new DfE program measure will be used to track program results. This measure calculates the number of products that have earned the DfE label and the number of chemicals listed on the Safer Chemical Ingredients List. This new DfE measure provides relevant and updated information on outputs. However, while the new measure is important, it has key limitations. Counts of products that are labeled safer and chemicals on the Safer Chemical Ingredients List do not provide evidence that consumers are actually purchasing and using these products instead of other products and, thus, having the desired pollution prevention and risk reduction impact. Without measures that better capture the use or sale of DfE products, the EPA will be limited in accurately projecting the outcomes and impacts of this program, including its desired impact on pollution prevention.

Conclusions

The DfE program is designed to help consumers make wise choices by identifying safer products. There are more than 2,500 products that carry the DfE logo, and the EPA has expressed interest in continuing to grow the program. The current DfE logo design and EPA-acknowledged low consumer recognition of the logo impedes the agency's goal to promote safer chemical-based products through the DfE program. Further, use of the logo by those who left the program, as well as by other EPA programs with different eligibility requirements, could negatively impact the overall integrity and value of the DfE logo. Improving the DfE logo should further the EPA's goals, better promote safer products, and support DfE brand recognition among consumers. In addition, having valid measures that capture DfE program results will strengthen the EPA's ability to accurately determine program benefits and contributions to pollution prevention.

Recommendations

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

1. Design a unique DfE logo that better conveys the program's objective and eliminates any appearance of an EPA endorsement.
2. Periodically review program participants' compliance with the DfE partnership agreement as it relates to appropriate use of DfE program language, including disclaimers and labeling requirements.
3. Develop and implement controls for accomplishing removal of the DfE logo from the websites of partners who leave the program.
4. Take appropriate action to address noncompliance with DfE partnership agreements discovered as a result of this review.
5. Remove statements on the EPA's website that imply or suggest that the EPA has determined that DfE products are a cost-effective choice, unless valid work to support that assessment has been completed.
6. Develop robust, transparent and adequately supported performance measures that capture the DfE program's results.

Agency Comments and OIG Evaluation

The agency agreed with our findings and recommendations, and provided corrective actions and estimated completion dates that meet the intent of the recommendations. The agency has fully addressed recommendation 5 and, therefore, it is closed. Based on the agency's written response to the report and a meeting to discuss the agency's response, we have determined that the remaining recommendations are resolved and open with corrective actions ongoing. No further response to this report is required. The agency's detailed response is in appendix A. The agency also provided a technical comment on the draft report, which we have incorporated into our report as appropriate.

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	7	Design a unique DfE logo that better conveys the program's objective and eliminates any appearance of an EPA endorsement.	O	Assistant Administrator for Chemical Safety and Pollution Prevention	3/31/15		
2	7	Periodically review program participants' compliance with the DfE partnership agreement as it relates to appropriate use of DfE program language, including disclaimers and labeling requirements.	O	Assistant Administrator for Chemical Safety and Pollution Prevention	12/31/14		
3	7	Develop and implement controls for accomplishing removal of the DfE logo from the websites of partners who leave the program.	O	Assistant Administrator for Chemical Safety and Pollution Prevention	6/30/15		
4	7	Take appropriate action to address noncompliance with DfE partnership agreements discovered as a result of this review.	O	Assistant Administrator for Chemical Safety and Pollution Prevention	6/30/15		
5	7	Remove statements on the EPA's website that imply or suggest that the EPA has determined that DfE products are a cost-effective choice, unless valid work to support that assessment has been completed.	C	Assistant Administrator for Chemical Safety and Pollution Prevention	8/8/14		
6	7	Develop robust, transparent and adequately supported performance measures that capture the DfE program's results.	O	Assistant Administrator for Chemical Safety and Pollution Prevention	9/30/15		

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.

Agency Response to Draft Report

August 8, 2014

MEMORANDUM

SUBJECT: Response to Office of Inspector General Draft Report No. OPE-FY14-0008
“EPA Can Help Consumers Identify Safer Chemical Products by Strengthening
Its “Design for the Environment” Program,” dated July 9, 2014

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 report. This memorandum provides the Agency’s response to OIG’s recommendations, and identifies corrective actions the Agency will be taking in response.

One item in the draft OIG report, which we did not comment on in our response to the discussion draft, pertains to the use of the DfE logo by another EPA pollution prevention initiative. The example cited in page 5 of the draft report is the DfE Safer Detergents Stewardship Initiative (SDSI). We propose a technical correction to the OIG report to replace the subject paragraph to more completely reflect how DfE has managed use of the DfE Safer Product Labeling Program logo (Attachment A).

The report contains a total of six recommendations. Below we list each recommendation and the OCSPP response, including timeframes for implementation.

Recommendation 1. Design a unique DfE logo that better conveys the program’s objective and fully eliminates any appearance of an EPA endorsement.

OCSPP agrees. We are in the process of redesigning the DfE logo to enhance its ability to communicate with consumers, attract the interest of product and chemical manufacturers, and increase the frequency of the logo’s use on products to meet the human and environmental health protection goals of the program. We have worked with the Agency’s Office of General Counsel to ensure that the redesigned logo complies with ethics considerations on use of the EPA name and potential endorsements.

Timeline. We will be gathering stakeholder and public comment on our logo designs this summer and fall. We plan to have a new, more effective logo for use on DfE-labeled products early in 2015. Completion date: Q2/FY15.

Recommendation 2. Periodically review program participants' compliance with the DfE partnership agreement as it relates to appropriate use of DfE program language, including disclaimers and labeling requirements.

With respect to DfE partner posting of endorsement disclaimers, the DfE program will enhance its regular auditing procedures to ensure that auditors look for the disclaimer language and note its absence in audit reports.

Timeline. We have instructed the third party auditors to include inspection for endorsement disclaimers in their audits and reports. The revised auditing process has been initiated (DfE email correspondence dated August 4, 2014); all desk audits beginning October 1, 2014 will include this component. Completion date: Q1/FY15 and ongoing.

Recommendation 3. Develop and implement controls for accomplishing removal of the DfE logo from the websites of partners who leave the program.

The DfE program will increase efforts to ensure that former partners do not use the logo. When a new program management system comes online, DfE will be able to better monitor and enforce appropriate use of the logo by current and former partners, as well as partner posting of the endorsement disclaimer.

Timeline. The new program management system is expected online this spring as a program monitoring tool, including to help ensure appropriate logo and endorsement disclaimer use. Completion date: Q3/FY15 and ongoing.

Recommendation 4. Take appropriate action to address noncompliance with DfE partnership agreements discovered as a result of this review.

As stated in our response to recommendations 2 and 3, the DfE program will increase its follow-up activities to address and remedy partner noncompliance, and we expect our new program management system to help considerably in this regard.

Timeline: As indicated in our response to recommendation 3, the new program management system is expected online this spring. Completion date: Q3/FY15 and ongoing

Recommendation 5. Remove statements on the EPA's website that imply or suggest that the EPA has determined that DfE products are a cost-effective choice, unless valid work to support that assessment has been completed.

OCSPP will remove this claim from the DfE web site and outreach materials. DfE historical documents may also contain reference to cost-effectiveness. DfE will implement this change in technical documents as they are updated.

Timeline. DfE has removed this claim from its web site and outreach materials. Completed: Q4/FY14

Recommendation 6. Develop robust, transparent and adequately supported performance measures that capture the DfE program's results.

OCSPP agrees that DfE performance measures capturing outcomes need to be developed. The new program management system referenced above will help capture relevant data such as production volumes and sales information on DfE-labeled products.

Timeline. DfE continues to work on new outcome-oriented performance measures and hopes to have them in place this fall. The new program management system should begin capturing these measures by the summer of 2015. Completion date: Q4/FY15.

If you have any questions or need further information about this response, please contact Deborah Hartman, OCSPP's Audit Liaison at (202) 564-1488.

Distribution

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