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The EPA Is Not on Track to Reach Its National Compliance Initiative Goals to Stop Aftermarket Defeat Devices and Tampered Vehicles

Report No. 23-E-0006

January 25, 2023



REDACTED VERSION FOR PUBLIC RELEASE

The full version of this report contained law enforcement sensitive information. This is a redacted version of that report, which means the law enforcement sensitive information has been removed. The redactions are clearly identified in the report.

Report Contributors: Bakari Baker
Seth Gerhart
Patrick Gilbride
Jonathan Morrand
Julie Narimatsu
Alton Reid
Jill Trynosky

Abbreviations:

CAA	Clean Air Act
C.F.R.	Code of Federal Regulations
EPA	U.S. Environmental Protection Agency
FY	Fiscal Year
NCI	National Compliance Initiative
OECA	Office of Enforcement and Compliance Assurance
OIG	Office of Inspector General
U.S.C.	United States Code

Key Definitions:

Aftermarket Defeat Device	Any part or component intended for use with, or as part of, any motor vehicle or motor vehicle engine, where a principal effect of the part or component is to bypass, defeat, or render inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine.
Tampering	Removing or rendering inoperative any device or element of design installed on or in a motor vehicle or motor vehicle engine.

Cover Image: A vehicle with defeated emissions controls releases hazardous smoke, also known as “rolling coal,” into the air. (EPA image)

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1200 Pennsylvania Avenue, NW (2410T)
Washington, D.C. 20460
(202) 566-2391
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Office of Inspector General U.S. Environmental Protection Agency **At a Glance**

23-E-0006
January 25, 2023

Why We Did This Evaluation

We conducted this evaluation to determine the:

- U.S. Environmental Protection Agency's progress toward achieving the goals and measures in the fiscal years 2020–2023 National Compliance Initiative, *Stopping Aftermarket Defeat Devices for Vehicles and Engines*.
- Extent to which the existing measures for the initiative track and promote the achievement of its goals.

Under the initiative, the EPA's Office of Enforcement and Compliance Assurance addresses noncompliance with the Clean Air Act's prohibition against tampering and aftermarket defeat devices. In support of the initiative, the office developed a strategic plan, which includes goals, measures, and deliverables. The initiative calls for EPA regions to engage states to encourage complementary actions to discourage aftermarket defeat device demand.

This evaluation supports these EPA mission-related efforts:

- *Improving air quality.*
- *Partnering with states and other stakeholders.*

This evaluation addresses these top EPA management [challenges](#):

- *Mitigating causes and adapting to impacts of climate change.*
- *Enforcing environmental laws and regulations.*

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The EPA Is Not on Track to Reach Its National Compliance Initiative Goals to Stop Aftermarket Defeat Devices and Tampered Vehicles

What We Found

The Office of Enforcement and Compliance Assurance, or OECA, is not on track to achieve ten (25 percent) of the 40 measures and deliverables in its National Compliance Initiative, or NCI, strategic plan. We could not evaluate the progress of six deliverables because the strategic plan did not include defined terms and concrete requirements for those metrics. In addition, the EPA has not met some of the measures and deliverables because OECA and the regions inconsistently interpreted the strategic plan's requirements. When provided the opportunity, OECA did not update the NCI strategic plan to clarify its requirements and reflect how the NCI is being implemented, which hindered the EPA's ability to overcome those obstacles.

Adequate training, quantifiable metrics, and effective communication are needed to track and promote NCI success.

According to regional staff, inadequate technical training hinders the achievement of some NCI strategic plan deliverables. Also, the deliverables are not always quantifiably linked to program outcomes and do not always promote effective communication. Moreover, the EPA shares some information based on NCI strategic plan metrics but does not share helpful enforcement data with the states or incentivize complementary state efforts to the EPA's NCI implementation.

Regional staff need technical training to prepare them to conduct inspections for aftermarket defeat devices and vehicle tampering. A lack of quantifiable deliverables means that the NCI's impact on aftermarket defeat devices and tampering is unknown. If the NCI's goals are not achieved, excess emissions from aftermarket defeat devices and tampered vehicles will continue to threaten public and environmental health.

Recommendations and Planned Agency Corrective Actions

We recommend that OECA (1) develop guidance for the regions; (2) update the NCI strategic plan to address unforeseen challenges; (3) include quantifiable deliverables in the NCI strategic plan; (4) work with the Office of General Counsel to release enforcement data to the states, as appropriate; and (5) overcome barriers to voluntary state efforts that complement the EPA's work. OECA disagreed with Recommendations 2, 3, and 5. While OECA agreed with Recommendations 1 and 4, it did not provide a completion date for Recommendation 1 or acceptable corrective actions for Recommendation 4. All recommendations are therefore unresolved.

Noteworthy Achievements

States noted that the NCI successfully raised general public awareness about aftermarket defeat devices and tampering, which increases enforcement efficacy.



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

THE INSPECTOR GENERAL

January 25, 2023

MEMORANDUM

SUBJECT: The EPA Is Not on Track to Reach Its National Compliance Initiative Goals to Stop Aftermarket Defeat Devices and Tampered Vehicles
Report No. 23-E-0006

FROM: Sean W. O'Donnell

A handwritten signature in blue ink that reads "Sean W O'Donnell".

TO: Lawrence Starfield, Acting Assistant Administrator
Office of Enforcement and Compliance Assurance

This is our report on the subject evaluation conducted by the U.S. Environmental Protection Agency Office of Inspector General. The project number for this evaluation was [OSRE-FY21-0228](#). This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures. Accordingly, the findings described in the report are not binding upon the EPA in any enforcement proceeding brought by the EPA or the U.S. Department of Justice.

The Office of Enforcement and Compliance Assurance is responsible for the issues discussed in this report, which contains five recommendations.

This version of the report, which is being provided to the public, has been redacted to remove law enforcement sensitive information.

Action Required

This report contains unresolved recommendations. EPA Manual 2750 requires that recommendations be resolved promptly. Therefore, we request that the EPA provide us within 60 days its responses concerning specific actions in process or alternative corrective actions proposed on the recommendations. Your response will be posted on the OIG's 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. The Inspector General Act of 1978, as amended, requires that we report in our semiannual reports to Congress on each audit or evaluation report for which we receive no Agency response within 60 calendar days.

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

Table of Contents

Chapters

1	Introduction	1
	Purpose	1
	Background.....	1
	Responsible Offices	6
	Noteworthy Achievements	7
	Scope and Methodology	7
2	The EPA Has Not Met All NCI Strategic Plan Metrics and Needs to Provide Guidance on Metrics and Implementation	9
	The EPA Has Not Met Many NCI Strategic Plan Metrics; Progress Toward Other Metrics Cannot Be Determined	9
	The EPA Needs to Improve Its Strategy and Develop Guidance to Overcome Challenges to NCI Strategic Plan Implementation	12
	Conclusions	14
	Recommendations	15
	Agency Response and OIG Assessment	15
3	Inadequate Technical Training, Limited Progress Tracking, and State Engagement Barriers Constrain the EPA’s Promotion of NCI Goals	16
	Regional and State Staff Perceive Technical Training as Inadequate, Preventing Full Participation in Efforts to Stop Aftermarket Defeat Devices and Tampering	16
	A Lack of Measurable Deliverables and Barriers to State Engagement Inhibit Efforts to Track and Promote NCI Goals	17
	Conclusions	24
	Recommendations	24
	Agency Response and OIG Assessment	25
	Status of Recommendations	27

Appendixes

A	NCI Strategic Plan Goals and Measures	28
B	Agency Response to Draft Report	35
C	Distribution	43

Chapter 1

Introduction

Purpose

The U.S. Environmental Protection Agency's Office of Inspector General [initiated](#) this evaluation to determine the:

- EPA's progress toward achieving the goals and measures in the EPA's fiscal years 2020–2023 National Compliance Initiative, or NCI, titled *Stopping Aftermarket Defeat Devices for Vehicles and Engines*.
- Extent to which existing measures track and promote the achievement of the NCI's goals.

Top Management Challenges Addressed

This evaluation addresses the following top management challenges for the Agency, as identified in the OIG's *U.S. Environmental Protection Agency Fiscal Year 2023 Top Management Challenges [report](#)*, issued October 28, 2022:

- Mitigating causes and adapting to impacts of climate change.
- Enforcing environmental laws and regulations.

Background

To protect public health and the environment from air pollution, the Clean Air Act, or CAA, requires that the EPA assess whether new vehicles and vehicle engines to be sold or distributed in the United States comply with EPA-established emissions standards. To comply with these standards, vehicle manufacturers develop and incorporate emissions-control technologies into their vehicles and vehicle engines. If a manufacturer wishing to sell a vehicle or vehicle engine complies with CAA regulations and meets the emissions standards and other conformity requirements, the EPA then certifies the vehicle or vehicle engine for sale.¹

CAA Section 203 Prohibitions

Pursuant to section 203(a)(3) of the CAA, 42 U.S.C. § 7522(a)(3), it is illegal for any person to manufacture, sell, or install any device for the purpose of bypassing the emissions controls in vehicles or vehicle engines after they are manufactured. These devices are called **aftermarket defeat devices**. Section 203(a)(3) of the CAA also prohibits any person from knowingly removing emissions controls from any vehicle or vehicle engine; this practice is known as **tampering**.

¹ Section 203 of the CAA, 42 U.S.C. § 7522(a)(1), requires that all new or imported vehicles and vehicle engines be covered by a certificate of conformity before they can enter commerce.

Key Terms

An **aftermarket defeat device** is any part or component intended for use with or as part of any vehicle or vehicle engine to bypass, defeat, or render inoperative any device or element of design installed on or in a vehicle or vehicle engine.

The term **aftermarket** refers specifically to emissions controls defeated after the manufacture of the vehicle.

In contrast to the installation of aftermarket defeat devices, **tampering** involves removing or rendering inoperative any device or element of design installed on or in a vehicle or vehicle engine.

Figure 1 shows an example of a tampered emissions-control system. The CAA prohibits the act or facilitation of emissions-control tampering, not the operation of tampered vehicles.

Figure 1: Example of tampering, which results in excess emissions



Left: An emissions-control system. *Right:* An emissions-control system replaced with a straight pipe.

Source: The EPA. (EPA images)

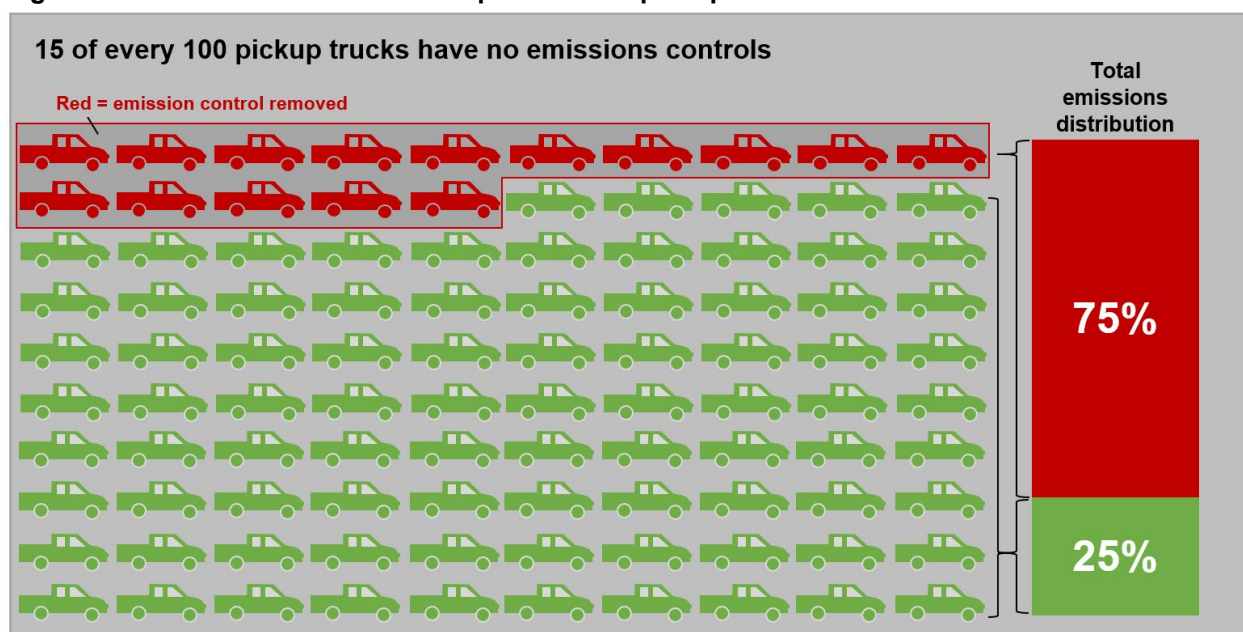
Impact of Aftermarket Defeat Devices and Tampering

On November 20, 2020, the EPA's Office of Enforcement and Compliance Assurance, or OECA, issued a report titled [*Tampered Diesel Pickup Trucks: A Review of Aggregated Evidence from EPA Civil Enforcement Investigations*](#). According to this report, tampered vehicles produce higher levels of air emissions. Specifically, the report quantified the scale and air quality impact of Class 2b and 3 diesel pickup trucks that were tampered after 2009 and before 2020 and that were involved in civil-enforcement investigations.²

In the *Tampered Diesel Pickup Trucks* report, OECA estimated that emissions controls were removed from more than 550,000 diesel pickup trucks after 2009 and before 2020. As shown in Figure 2, the tampered trucks constituted approximately 15 percent of the national volume of diesel trucks that were originally certified with emissions controls, but they accounted for 75 percent of the emissions released by all diesel pickup trucks. These tampered trucks would emit more than 570,000 tons of excess oxides of nitrogen and 5,000 tons of particulate matter over their lifetimes. These excess emissions represented air-quality impacts equivalent to adding more than 9 million diesel pickup trucks on U.S. roads.

² Class 2b and 3 diesel pickup trucks fit into the 8,500 to 14,000 pounds gross vehicle weight rate range.

Figure 2: Excess emissions from tampered diesel pickup trucks*



Source: OIG analysis of OECA's *Tampered Diesel Pickup Trucks* report. (EPA OIG image)

*Analysis conservatively assumes that 85 percent of the diesel pickup truck fleet has untampered emission controls.

Given that the *Tampered Diesel Pickup Trucks* report only considered certain tampered diesel pickup trucks, these estimates likely understate the severity of the problem with excess emissions from not only tampered vehicles but also aftermarket defeat devices. One member of OECA's staff told us the actual rate of tampering in the diesel truck fleet could be as high as 40 percent of all diesel trucks. That same staff person stated that the aftermarket tampered emissions-controls issue is "much worse" than the Volkswagen emissions cheating scandal, a prominent civil-enforcement case in which the company violated the CAA by selling approximately 583,000 model years 2009 to 2015 diesel motor vehicles with the ability to cheat on the federal emissions test.³

According to the EPA, vehicle emissions also contain greenhouse gases, such as carbon dioxide, methane, and nitrous oxide. These gases trap heat in the atmosphere, contributing to climate change and adversely affecting human health. In terms of impacting human health, excess emissions are linked to increased risk of premature death for people with heart and lung disease. Long-term exposure to pollutants is also linked to damage in immune, neurological, and reproductive systems, as well as associated with an increased risk of cancer.

CAA Section 203 Enforcement

The EPA's Policy on Tampering and Aftermarket Defeat Devices

The EPA Tampering *Policy*: *The EPA Enforcement Policy on Vehicle and Engine Tampering and Aftermarket Defeat Devices under the Clean Air Act*, issued November 23, 2020, establishes the framework for OECA's civil enforcement of the CAA prohibitions on tampering and aftermarket defeat devices. The EPA's goal in issuing this policy was to ensure that the EPA achieves the human and

³ See EPA OIG Report No. [18-P-0181](#), *EPA Did Not Identify Volkswagen Emissions Cheating; Enhanced Controls Now Provide Reasonable Assurance of Fraud Detection*, issued on May 15, 2018, for more information.

environmental health protections that Congress intended by enforcing prohibitions on tampering and aftermarket defeat devices while not unduly restraining commerce in the aftermarket sales and service industry. If the EPA identifies violations of section 203(a)(3) of the CAA, it may initiate enforcement actions or refer matters to the U.S. Department of Justice.

The EPA's *Stopping Aftermarket Defeat Devices for Vehicles and Engines* NCI

Despite CAA prohibitions, the EPA has found that numerous companies and individuals manufacture and sell both hardware and software specifically designed to defeat required emissions controls on vehicles and engines used on public roads, as well as on nonroad vehicles, engines, and equipment. In FY 2020, the EPA undertook a new NCI: *Stopping Aftermarket Defeat Devices for Vehicles and Engines*. The NCI focuses on developing national aftermarket defeat device and tampering enforcement expertise, conducting investigations and enforcement activities, and creating partnerships with the states. Such activities are meant to stop the sale and installation of aftermarket defeat devices and prevent the removal of filters, catalysts, and exhaust gas-recirculation systems [REDACTED].

What is an NCI?

The EPA focuses its enforcement and compliance assurance resources on the most serious environmental violations by developing and implementing national program priorities, called **National Compliance Initiatives**. For more information on the *Stopping Aftermarket Defeat Devices for Vehicles and Engines* NCI, readers can access the NCI [webpage](#).

[REDACTED]. Under the NCI, EPA personnel are to take action to address noncompliance with emissions standards and the aftermarket tampering or defeat of emissions-control technologies. The Agency has a range of compliance assurance tools, including formal enforcement against those companies that manufacture or sell aftermarket defeat devices and that tamper with commercial fleets [REDACTED].

To implement the NCI, OECA developed a four-goal NCI strategic plan, titled *Implementation Strategy Stopping Aftermarket Defeat Devices for Vehicles and Engines FY 2020-2023 National Compliance Initiative*, in March 2020. The NCI strategic plan focuses on stopping suppliers from providing tampering technology and services and relies on state outreach to address existing noncompliant vehicles, engines, and equipment. The plan also defines goals, measures, and deliverables that will help the EPA achieve the NCI's mission to stop aftermarket defeat devices and tampering.

Three of the four goals in OECA's NCI strategic plan contain measures, and each measure contains deliverables, many with specific deadlines. The fourth goal has no specified measures or deliverables. An "Environmental Justice Addendum," dated February 2021, also contains no specified measures but does have three deliverables.

Key Terminology

Measures are an assessment of the results of a program activity compared to its intended purpose, ultimately helping the EPA to understand the level of performance that is achieved by continuously monitoring and reporting a program's progress and accomplishments.

Deliverables are any measurable, tangible, or verifiable outcome, result, or item that must be produced to complete a project milestone.

For the purposes of this report, we refer collectively to the NCI strategic plan's measures and deliverables as **metrics**.

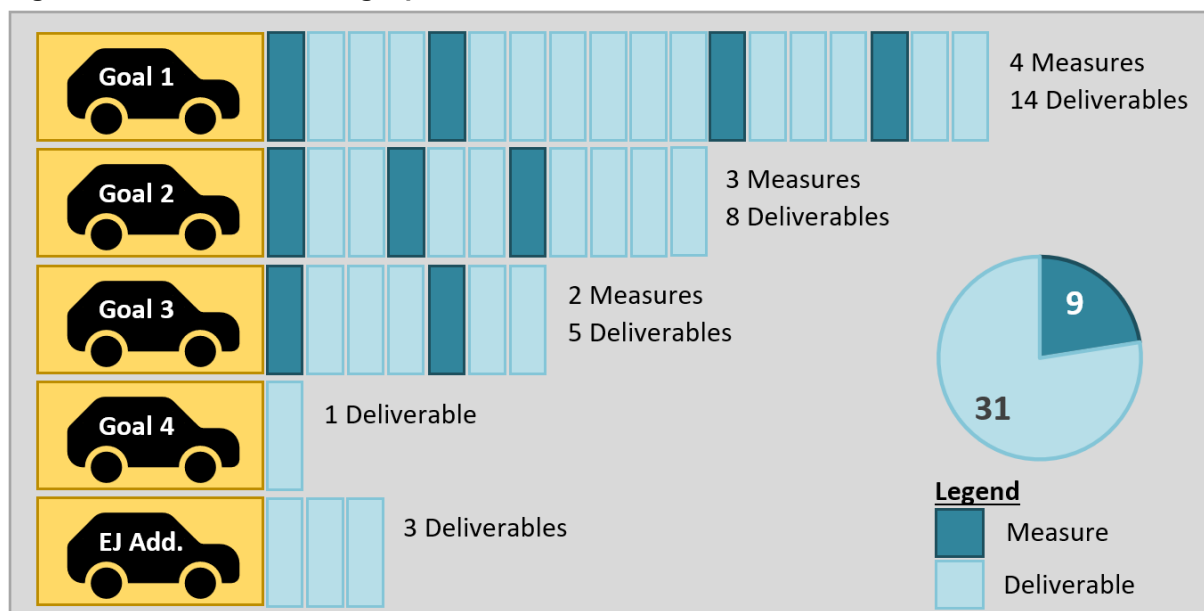
The four goals of OECA's NCI strategic plan are:

- **Goal 1: Develop a National Mobile-Source Compliance Program with Participation of Every Region.** [REDACTED]

- **Goal 2: Identify and Stop the Sale and Installation of Aftermarket Defeat Devices and Achieve General Deterrence.**
- **Goal 3: Engage States to Curtail Demand for Aftermarket Defeat Devices.**
- **Goal 4: Review the NCI Implementation Strategy by April 2021.**

The NCI strategic plan contains 40 measures and deliverables, which we collectively refer to in this report as **NCI strategic plan metrics**. Figure 3 shows the breakdown of measures and deliverables for each of the NCI strategic plan’s goals and the “Environmental Justice Addendum.” Appendix A provides additional details on the goals, measures, and deliverables we examined during our evaluation.

Figure 3: OECA’s NCI strategic plan measures and deliverables



Notes: “EJ Add.” refers to the “Environmental Justice Addendum.” In the NCI strategic plan and this figure, deliverables relate to the immediately preceding measure.

Source: OIG analysis of the EPA’s NCI strategic plan. (EPA OIG image)

The Role of the States in Stopping Aftermarket Defeat Devices

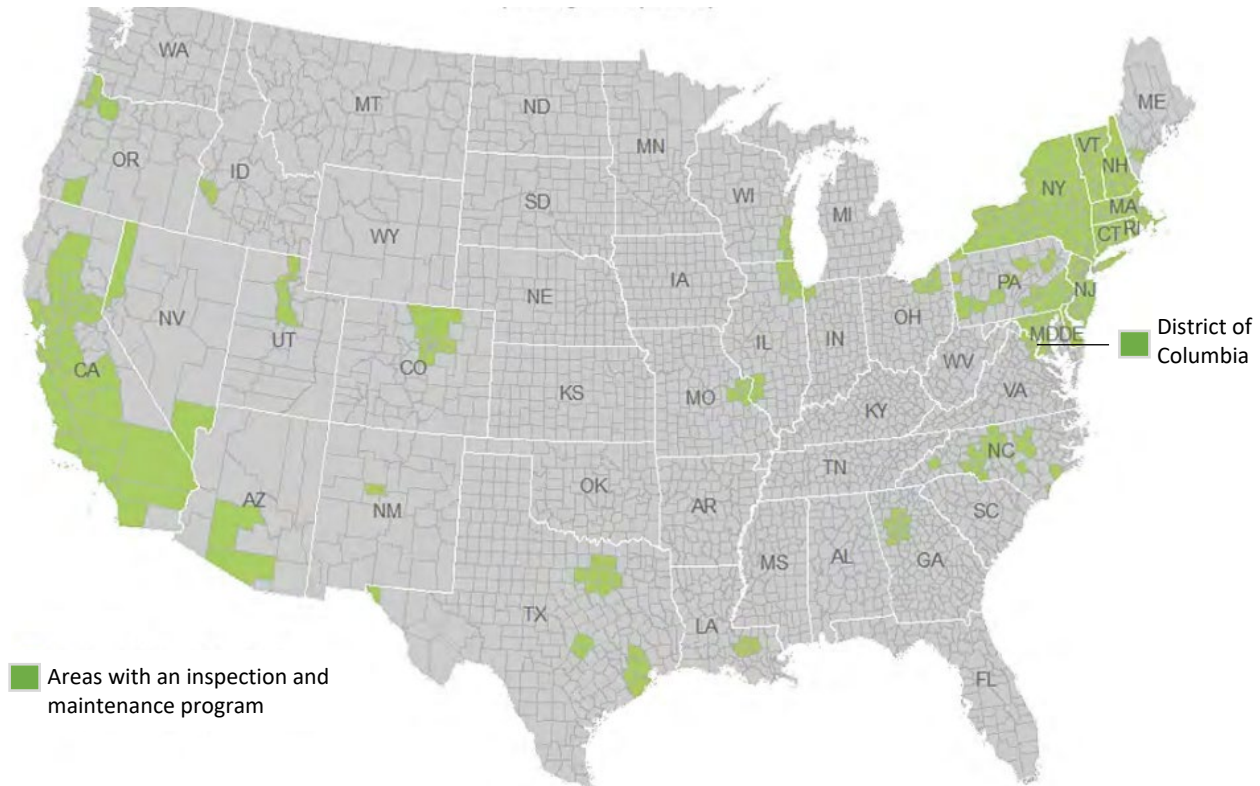
According to OECA, the CAA does not allow the EPA to delegate section 203 responsibilities to the states; however, states can voluntarily complement the EPA’s aftermarket defeat device and tampering enforcement activities by using state, rather than federal, authorities. The NCI strategic plan notes that

state partnerships are essential to reduce customer demand by preventing the registration, use, or resale of tampered vehicles. For example, many states have inspection and maintenance programs that identify whether a nondiesel vehicle has been tampered with.

An **inspection and maintenance program** is a program that is implemented by a state or local government to help improve air quality by identifying cars and trucks with high emissions that may need repairs.

The CAA requires certain areas of the country to have inspection and maintenance programs to achieve or maintain National Ambient Air Quality Standards by periodically inspecting vehicle emissions-control systems. According to the EPA, these programs help protect public health by identifying vehicles with high emissions that need repairs as a prerequisite for vehicle registration. States are responsible for developing their own inspection and maintenance programs to meet the EPA’s regulations. As shown in Figure 4, vehicle-testing requirements vary across the country; however, states can use these programs to aid in identifying and stopping aftermarket defeat devices and tampering, and the EPA considers these programs complementary to the Agency’s work.

Figure 4: Areas with inspection and maintenance programs*



Source: EPA Office of Transportation and Air Quality, *Overview of Vehicle Inspection and Maintenance (I/M) Programs*, EPA-420-F-21-067, dated October 2021. (EPA OIG adaptation of EPA image)

* Alaska and Hawaii are not shown because they are not in the contiguous United States and do not have inspection and maintenance programs.

Responsible Offices

OECA and the EPA’s ten regions are responsible for enforcing section 203 of the CAA. OECA is responsible for developing, maintaining, and overseeing the NCI. OECA’s Air Enforcement Division is responsible for:

- Providing criteria, training, and best practices to regional offices.
- Creating compliance-assistance and alert information for external stakeholders.
- Collaborating with OECA’s Criminal Investigation Division.
- Facilitating communication between the various EPA offices and regions.

The EPA’s regional offices are primarily responsible for conducting NCI inspections, issuing information requests, and pursuing enforcement cases within their jurisdictions. The regional offices are also responsible for:

- Providing OECA with feedback and updates on their aftermarket defeat device casework.
- Learning relevant state authorities.
- Inviting states to participate in trainings that are held in or near the state.

Noteworthy Achievements

Based on interviews and documents we reviewed about OECA’s NCI, we identified certain noteworthy achievements. For example, California, a state leader in mobile source regulation, informed us that more information is available about vehicle aftermarket defeat devices than before the EPA began implementing the NCI and Region 9 concurred with this statement. These stakeholders believe this increase in information is helpful in the fight against aftermarket defeat devices and tampering. The California Air Resources Board’s Enforcement Division praised OECA’s ability to raise awareness about these issues. The board explained that raising awareness is important for an enforcement program because it increases the odds of catching illegal activities. In support of the board’s statement, the State of California told us that it has heard more “outcry” about the EPA’s activities on social media platforms and from trade groups than before the NCI was implemented, when knowledge of the board’s activities was previously limited to stakeholders. The state also advised that it has had an easier time with some case-settlement conversations since the EPA started enforcement activities.

Scope and Methodology

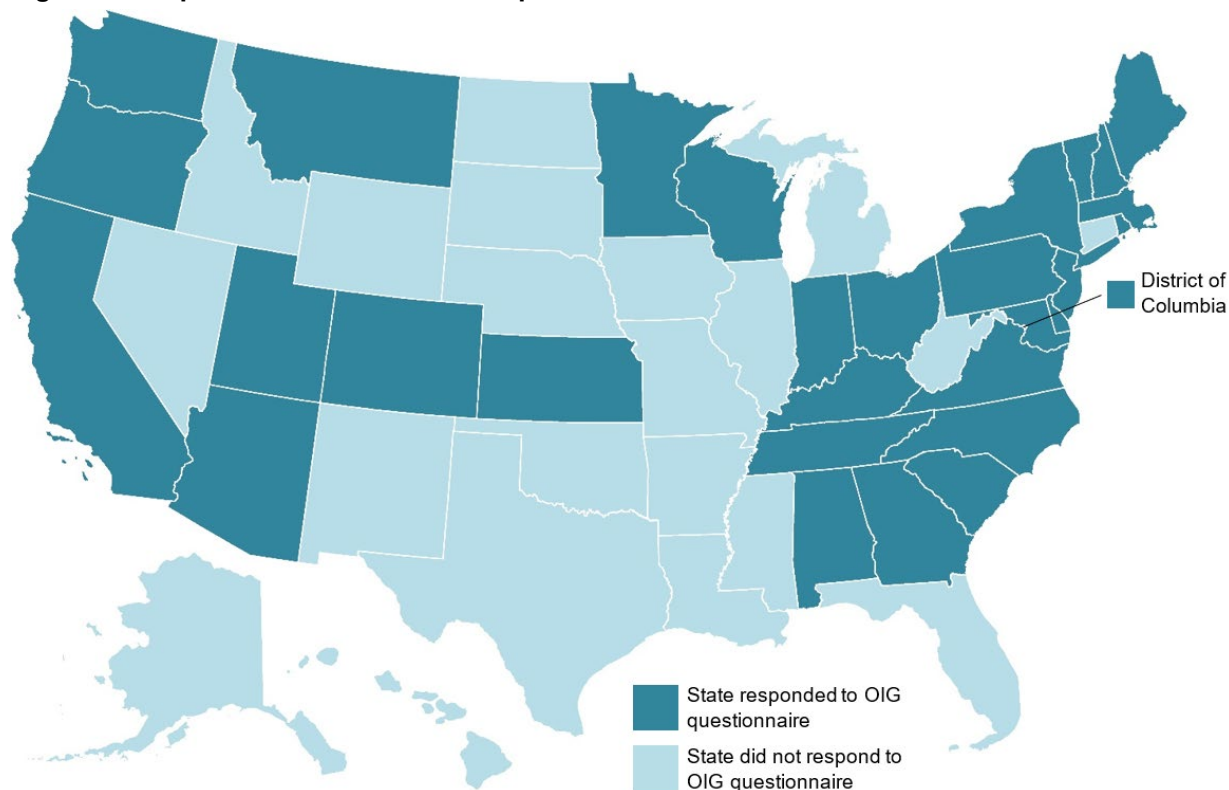
We conducted this evaluation from July 2021 to August 2022 in accordance with the *Quality Standards for Inspection and Evaluation*, which was published in January 2012 by the Council of the Inspectors General on Integrity and Efficiency. Those standards require that we plan and perform the evaluation to obtain sufficient and appropriate evidence to support our findings, conclusions, and recommendations based on our objectives. We believe that the evidence obtained provides a reasonable basis for our findings, conclusions, and recommendations based on our review.

To answer our evaluation objectives, we reviewed enforcement data and information related to the goals, measures, and deliverables included in the NCI strategic plan. We reviewed all 40 NCI strategic plan metrics and assessed 25 (approximately 63 percent) of those metrics for completion. Specifically, we reviewed nine measures, but we only assessed one measure for completion because the other eight measures lacked specific criteria. We reviewed all 31 deliverables associated with the NCI strategic plan and assessed 24 (approximately 77 percent) of those deliverables for completion. We assessed those metrics that either had at least one deadline pass before the conclusion of our evaluation or had been acted upon by the EPA but that action did not completely satisfy the metric. Appendix A identifies the one measure and 24 deliverables that we assessed.

In September 2021, we created and issued two questionnaires:

- One questionnaire was sent to the ten EPA regions, specifically to contacts provided to us by OECA and the regional audit follow-up coordinators. All ten EPA regions responded to our regional questionnaire.
- One questionnaire was sent to the 50 states and the District of Columbia, specifically to contacts and subject-matter experts whose names were provided to us by the EPA regional offices. As shown in Figure 5, 29 states and the District of Columbia responded to this survey. For simplicity, we hereafter refer to the responses to our state questionnaire as being from 30 states.

Figure 5: Responses to the OIG's state questionnaire*



Source: OIG analysis of state questionnaire responses. (EPA OIG image)

*Although not a state, we refer to the District of Columbia as a state within the context of this map and the report.

After we analyzed the state and regional questionnaire responses, we conducted follow-up interviews with EPA staff and managers from OECA; the Office of Transportation and Air Quality, which is within the Office of Air and Radiation; the Office of General Counsel; and six of the ten EPA regions. In addition, we interviewed employees from 12 states and the District of Columbia. For simplicity, we hereafter refer to these interviews as being with 13 states. We used the information obtained to build a logic model. A **logic model** is an analytical tool that, in this case, depicted the relationship between the NCI's tracked activities and intended program effects. When assessing metrics for completion, we based our analysis on the plain meaning of the NCI strategic plan's language. In other words, if a metric was partially missed, we considered the metric as not being met. For example, if a single in-person training required from FYs 2020 through 2023 was not conducted, this metric was not met for the purposes of our analysis within this report.

Chapter 2

The EPA Has Not Met All NCI Strategic Plan Metrics and Needs to Provide Guidance on Metrics and Implementation

As of January 1, 2022, the EPA had not met ten (40 percent) of the 25 NCI strategic plan metrics that had due dates on or before the end of FY 2021. In addition, because some NCI strategic plan metrics were vague, we could not determine whether OECA made progress toward six of those 25 metrics. OECA did not meet the ten NCI strategic plan metrics because of:

- Complications caused by the coronavirus pandemic.⁴
- Competing enforcement priorities.
- Communication barriers between OECA and its stakeholders.
- The absence of guidance on how to interpret and report deliverables.
- A lack of updates to the NCI strategic plan.

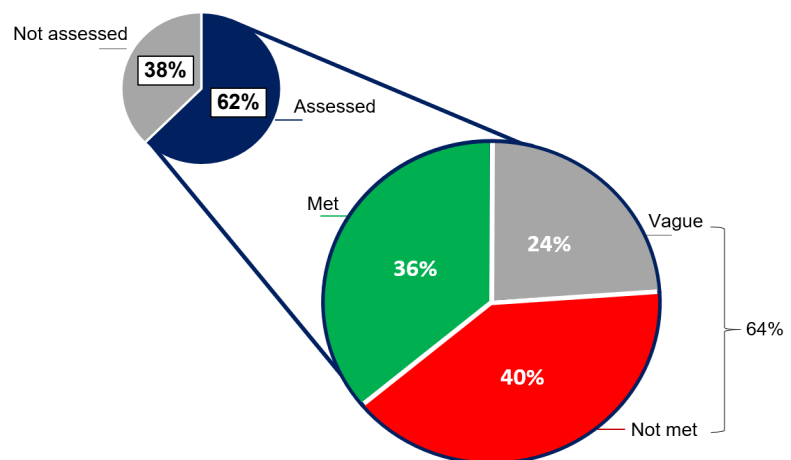
The hierarchical nature of the NCI strategic plan, with multiple deliverables supporting the achievement of a specific measure and with multiple measures supporting the achievement of a specific goal, means unachieved metrics decrease the likelihood that the EPA will accomplish the NCI goals. Thus, a revised NCI strategic plan and guidance on how to interpret the NCI strategic plan metrics would help OECA to implement its NCI and address public health threats from aftermarket defeat devices and tampered vehicle emissions.

The EPA Has Not Met Many NCI Strategic Plan Metrics; Progress Toward Other Metrics Cannot Be Determined

As shown in Figure 6 and detailed in Appendix A, 16 (64 percent) of the 25 NCI strategic plan metrics that we reviewed either were not met or were too vague to measure for progress. Specifically, the EPA did not meet ten (40 percent) of those 25 metrics, and we could not determine the status of six other metrics because OECA did not define key terms or establish concrete requirements, which made the metrics too vague.

The NCI strategic plan’s metrics are made up of measures and their

Figure 6: Progress of OECA toward meeting the NCI strategic plan’s metrics



Source: OIG analysis of the EPA’s NCI strategic plan. (EPA OIG image)

⁴ Throughout this report, *coronavirus pandemic* refers to the SARS-CoV-2 virus and resultant COVID-19 disease.

corresponding deliverables. Each measure relates to a specific goal and spans a range of requirements that support the goal. Most of the NCI strategic plan's measures, both those that we did and did not assess, are not quantifiable. They rely on underlying deliverables to assess OECA's progress toward achieving the NCI strategic plan's goals. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED] While the measure cannot be objectively assessed for completion, the deliverable in this example can be measured by quantifying [REDACTED].

[REDACTED]

[REDACTED]

[REDACTED], but those efforts cannot be measured because Measure 2-3 does not contain quantitative requirements. [REDACTED]

There were six deliverables in the NCI strategic plan, however, that lacked defined terms and concrete requirements. [REDACTED]

[REDACTED]

While this deliverable provides a tangible milestone date, the NCI strategic plan does not define [REDACTED]. The lack of specificity for this and five other deliverables resulted in our inability to assess OECA's progress toward meeting the associated NCI strategic plan goals.

On the EPA’s “Program Evaluation and Performance Measurement at the EPA” [webpage](#), the definition of a good measure includes that it should be “consistent and comparable to help sustain learning” and be able to “withstand reasonable scrutiny.” The definition of a measure itself states that the purpose of measures is to allow the EPA “to continuously monitor and report a program’s progress and accomplishments” to gauge whether the program meets its goals and objectives. Such monitoring cannot occur without specific, quantifiable metrics.

While the GPRA Modernization Act of 2010 (GPRA stands for Government Performance and Results Act) does not apply to OECA’s NCI strategic plan, the Act does establish best practices that could help OECA avoid vague, unmeasurable metrics in future iterations of the NCI strategic plan. The Act provides standards for the creation of agency strategic plans and agency performance reporting. According to the Act:

- Federal agencies may, as needed, adjust their strategic plans to reflect significant changes in the environment in which the agency operates.
- Goals shall be expressed in an objective, quantifiable, and measurable form.
- Goals shall include, among other items, clearly defined milestones.
- Agencies shall establish performance indicators—in other words, measures and deliverables—that support goals. Such indicators would allow the EPA to measure progress toward each goal and provide a basis for comparing actual program results with the performance goals.

The EPA Believes It Has Met All NCI Strategic Plan Metrics, but OIG Analysis Shows a Lack of Metric Completion

In October 2021, OECA provided us with a spreadsheet that indicated that the EPA had met all NCI strategic plan goals, measures, and deliverables. In a December 13, 2021 meeting, OECA maintained this position. We compared OECA’s statements to our analysis of OECA’s progress and found that OECA had not completed ten of its claimed accomplishments. Table 1 shows an excerpt of this analysis, and Appendix A provides our full analysis of the extent to which OECA met or did not meet the NCI strategic plan metrics.

Table 1: Comparing OECA’s self-assessment of deliverable progress to the OIG’s assessment

OECA self-assessment	versus	OIG assessment
Deliverable 2-1-1: The deliverable is met and is ongoing. The deliverable is tracked via midyear and end-of-year reporting.		Deliverable 2-1-1: The deliverable was not met. [REDACTED]
Deliverable 3-1-1: The deliverable is met and is ongoing. The deliverable is tracked via midyear and end-of-year reporting.		Deliverable 3-1-1: The deliverable was not met. [REDACTED]

Source: OIG analysis of the EPA’s actions related to its NCI strategic plan. (EPA OIG table)

The EPA Needs to Improve Its Strategy and Develop Guidance to Overcome Challenges to NCI Strategic Plan Implementation

OECA needs to update its NCI strategic plan and develop guidance on how to interpret, track, and report actions taken to satisfy each metric so that the EPA can implement the NCI according to the NCI strategic plan. Challenges presented by the coronavirus pandemic and other enforcement priorities caused the EPA to not meet some NCI strategic plan metrics. Vague metrics also can cause differing interpretations as to what actions should be taken to meet NCI strategic plan goals. In addition, a lack of communication between OECA and the regions impaired the EPA's ability to accomplish and measure progress toward NCI strategic plan goals. OECA is also not updating the NCI strategic plan based on lessons learned from the regions.

The Coronavirus Pandemic and Competing Enforcement Priorities Inhibited Meeting NCI Strategic Plan Metrics

OECA did not achieve some NCI strategic plan metrics because of challenges caused by the coronavirus pandemic and competing enforcement priorities. Staff members from three regions cited a lack of on-site inspections and credentialed inspectors because of pandemic restrictions. [REDACTED]

[REDACTED]. From March 2020 through May 2, 2022, the EPA operated in full-time telework status, which meant that inspectors could not receive in-person training. Prohibitions on in-person activities also affected the EPA's ability to conduct inspections and regional--based trainings, both of which require a physical presence.

Vague Metrics and Differing OECA and Regional Interpretations Are Barriers to Achievement

OECA and the regions report and interpret the NCI strategic plan metrics differently. This disconnect, along with vague language in the metrics, are barriers to successful achievement of measures and deliverables. In response to our regional questionnaire, OECA staff stated that three of our questions used language that could lead to inconsistent regional responses. For example, regarding our question about whether a regional action was "significant," OECA noted that the regions would likely have difficulty gauging what meets the threshold of "significant." However, the three questions that OECA said were "vague" or that "may lead to inconsistent responses" used language taken from the NCI strategic plan. Based on OECA's response to those questions, we concluded that regions could also inconsistently interpret portions of the NCI strategic plan.

The vague language and the lack of guidance on interpreting the NCI strategic plan metrics added to the confusion and resulted in the regions' differing interpretations of successful metric fulfillment. These factors caused issues with the regions meeting the NCI strategic plan metrics. [REDACTED]

[REDACTED]

[REDACTED]

Based on OECA’s statement and other evidence gathered via our state and regional questionnaires, we determined that this deliverable was not met.

As another example, OECA and the regions inconsistently reported on the status of [REDACTED]. The regions and OECA had contrary data regarding this metric, and the guidance was not clear or consistent [REDACTED].

[REDACTED]

[REDACTED]

[REDACTED]

OECA [REDACTED] and asserted that it met Measure 1-1. While OECA stated that the EPA successfully met the metric, we disagree with this assessment.

[REDACTED]

Clarifying NCI metrics with well-defined terms can create more structured and uniform regional interpretation, implementation, tracking, and reporting. This change can help the EPA demonstrate successes in a more measurable fashion.

Strategy Updates and More Effective Communication Are Needed

The NCI Steering Committee, which is made up of regional and headquarters staff, had an opportunity to update OECA’s NCI strategic plan to address the challenges described above, but it did not do so.

Goal 4 of the NCI strategic plan provided the committee with an opportunity to propose changes to the plan in January 2021 and to “reissue a revised Implementation Strategy before April 2021.” The only addition to the NCI strategic plan, however, was to include the “Addendum: Serving Environmental Justice Communities,” which was dated February 19, 2021. The NCI Steering Committee told us that it did not propose other changes to the strategic plan due to the time

The **NCI Steering Committee** was formed to write, with input of senior management, an appropriate strategy and criteria for the NCI. It is the committee’s responsibility to determine how to track progress toward successful NCI completion.

required—purportedly nine months—to complete the plan’s initial approval process, far more than the four months allotted for the revision (January through April 2021). The NCI Steering Committee also said that it did not have enough time to properly evaluate progress toward metrics that were already in place and did not feel it would be appropriate to update the plan without that information.

As a result, the NCI strategic plan does not always reflect how the NCI is being implemented. For example, certain metrics were not achievable because of the coronavirus pandemic and were implemented in other ways, but these alternative interpretations of the metrics were not added to the strategic plan. As such, OECA did not meet some metrics as they are written in the NCI strategic plan, even though other approaches may have been implemented.

There is also no requirement or formal mechanism for the NCI Steering Committee to obtain regional feedback and incorporate it into the NCI strategic plan. Some regions informed us that they suggested updates to the NCI strategic plan but that OECA did not incorporate these suggestions. One member of OECA’s staff working on the initiative stated that OECA viewed the NCI strategic plan as a “housekeeping document” and, therefore, placed a low value on using the strategic plan to monitor NCI success. Data gathered from our regional questionnaire and interviews with OECA and regional staff illustrate a lack of effective communication between OECA and regional offices, which impairs the EPA’s ability to measure the success of the NCI strategic plan. Further, OECA did not provide the regions with guidance and criteria on NCI strategic plan metric implementation and reporting. Without issuing additional guidance, such as clarifying vague and undefined terms like “informal action,” the EPA cannot ensure uniform regional interpretation of the overall metrics. The lack of such uniformity hampers metric achievement.

Similarly, the EPA did not meet certain Goal 3 deliverables, including Deliverable 3-2-1, [REDACTED]

[REDACTED]. In response to our questionnaire, many states said that they wanted more coordination with the EPA to curtail the aftermarket defeat device market. Of the 13 states we interviewed, staff from nine said that they are seeking guidance, information, and training from the EPA. Eight states told us that the 2020 *Tampered Diesel Pickup Trucks* report was not helpful. Chapter 3 further explores and recommends actions to address these barriers.

OECA’s decision to not update its NCI strategic plan to address challenges created by the coronavirus pandemic, the confusion about terms such as “credentialed inspectors” and “informal actions,” and the variations in how regions track each measure and deliverable are all examples of problems that OECA can address with more effective communication with the regions. More effective communication can help states that want to help stop aftermarket defeat devices but lack direction on how to do so.

Conclusions

The NCI strategic plan is meant to address the manufacture, sale, and installation of aftermarket defeat devices on vehicles and engines. Because of differing interpretations of metrics by the regions due to language used, challenges encountered during the pandemic, and the NCI Steering Committee not incorporating updates into the strategic plan, OECA is not achieving some of its performance goals and metrics. OECA thus cannot reliably assure progress within its NCI. Revising the NCI strategic plan to address the barriers described above would help the EPA demonstrate measurable success and maintain and improve air quality, especially in populations susceptible to health issues. More effective guidance from OECA to the regional offices would clarify vague terms and provide direction to continue credentialing inspectors during a long-term challenge. Developing such effective guidance can be

achieved by having concise definitions and language to guide the regions to uniform implementation of the strategic plan, updating the plan to reflect regional feedback, and implementing emergency preparedness lessons learned.

Recommendations

We recommend that the assistant administrator for Enforcement and Compliance Assurance:

1. Develop guidance for the regions that outlines how to interpret, track, and report metrics and that defines vague terms used in the EPA's *Stopping Aftermarket Defeat Devices for Vehicles and Engines* National Compliance Initiative strategic plan.
2. Update the EPA's *Stopping Aftermarket Defeat Devices for Vehicles and Engines* National Compliance Initiative strategic plan so that the National Compliance Initiative goals can be achieved in the event of a pandemic or other challenge.

Agency Response and OIG Assessment

Appendix B includes the Agency's response to our draft report.⁵ In its response, OECA agreed with Recommendation 1 and proposed acceptable corrective actions but did not provide an estimated completion date. This recommendation is considered unresolved pending a proposed completion date.

OECA disagreed with Recommendation 2. OECA noted that it would be challenging to develop guidance in preparation for emergency events like the scale and impact of the coronavirus pandemic. Specifically, OECA stated that it is difficult, if not impossible, to predict impacts on Agency operations and that no guidance document can ensure that earlier-selected goals can still be achieved. We did not intend to recommend that the EPA develop prescriptive guidance to cover all potential challenges to OECA's enforcement work; rather, our intent was to recommend that the EPA add language to its NCI strategic plan that would allow the Agency to amend its metrics to continue to achieve its goals when faced with an emergency. This recommendation is unresolved.

⁵ OECA also provided separate technical comments, which we used to update the report where appropriate.

Chapter 3

Inadequate Technical Training, Limited Progress Tracking, and State Engagement Barriers Constrain the EPA's Promotion of NCI Goals

Goals 2 and 3 of the NCI strategic plan seek to curtail aftermarket device devices and tampered vehicles and to promote engagement with the states; however, the deliverables for these goals do not always promote or track OECA's desired outcomes. The EPA's achievement of these deliverables is hindered by regional and state staff perceptions that OECA's technical trainings do not adequately prepare them to stop aftermarket defeat devices and tampered vehicles. In addition, the deliverables for Goal 2 are not quantifiably linked to program outcomes, while the deliverables for Goal 3 do not always promote effective communication and do not take advantage of opportunities to share data with the states. While OECA is making progress toward developing a national program to respond to the supply of aftermarket defeat devices and to address vehicle tampering, regional staff need technical training tailored to their specific NCI compliance and enforcement activities. Nonquantitative deliverables hinder OECA's ability to track its activities and to perform objective assessments of progress toward achieving NCI goals. Further, barriers to state engagement limit the development of the partnerships necessary to achieve the NCI goals. If the NCI goals are not achieved, excess emissions caused by aftermarket defeat devices and tampered vehicles will continue to threaten public and environmental health.

Regional and State Staff Perceive Technical Training as Inadequate, Preventing Full Participation in Efforts to Stop Aftermarket Defeat Devices and Tampering

Interviews with and questionnaire responses from regional subject-matter experts indicated that all regions participate in the NCI to some extent. However, NCI participation by some regional staff was limited, partly because, according to these regional staff, OECA's training did not adequately prepare them to stop aftermarket defeat devices and vehicle tampering.

[REDACTED]

OECA staff informed us that they held in--person, multiday technical trainings twice per fiscal year prior to the coronavirus pandemic. During the coronavirus pandemic, OECA had its technical trainings on an internal database that Agency partners could access. However, staff from Regions 1, 2, 6, and 8, as well as staff from seven states, described OECA's technical trainings as inadequate. For example, staff from two of those regions noted that the trainings provided a broad overview of the issues but did not provide specifics relevant to the regional inspectors' jobs. Staff from one region stated that the technical trainings lacked information regarding [REDACTED], and staff from another region stated that the trainings placed too much focus on [REDACTED]. Staff from one state who attended

training noted that it was too broad and covered general topics, such as the history of the CAA, rather than the on-the-ground needs of inspectors.

[REDACTED]

EPA staff from four regions told us that the issuance of CAA section 208 letters, as described in the green sidebar, are as valuable as in-person inspections. While pandemic precautions limited in-person inspections, OECA staff claimed that the remote issuance of section 208 letters allowed the regions to continue their NCI work.

[REDACTED]

CAA Section 208
Section 208 of the CAA, 42 U.S.C. § 7542, authorizes EPA staff to inspect records, files, papers, processes, controls, and facilities to determine whether a manufacturer or other person has acted or is acting in compliance with emissions control standards. A **section 208 letter** is an information request authorized under section 208 of the CAA and issued by OECA or an EPA regional office in response to allegations of emissions-related violations, including installing aftermarket defeat devices or tampering with emissions controls.

[REDACTED]

A Lack of Measurable Deliverables and Barriers to State Engagement Inhibit Efforts to Track and Promote NCI Goals

The NCI strategic plan’s Goal 2 deliverables, which focus on stopping current and preventing future CAA violations, are not linked to program outcomes. Linking deliverables and program outcomes is necessary to track the EPA’s progress toward stopping aftermarket defeat devices. The NCI strategic plan aims to develop state partnerships. While this goal is valuable for reducing the demand and quantity of existing tampered vehicles and those with installed aftermarket defeat devices, it is inhibited by various barriers, such as OECA’s concerns about sharing sensitive data that states need to target their enforcement efforts. There is also a lack of incentives for states to voluntarily support the EPA’s efforts to stop aftermarket

defeat devices and tampering. OECA relies on complementary state partnerships that can support the identification and stop the sale of aftermarket defeat devices and achieve general deterrence.

Goal 2 Needs Quantitative Deliverables Linked to Desired Outcomes to Demonstrate NCI Success

Goal 2 of the NCI strategic plan aims to stop the sale and installation of aftermarket defeat devices. This goal also directs OECA and the regions to achieve a general deterrence to tampering activities. However, there are no deliverables under Goal 2 that measure the annual number of aftermarket defeat devices prevented from reaching the market or the deterrence of vehicle tampering activities. Similarly, there are no deliverables to measure excess emissions reduced or avoided. The lack of quantifiable deliverables related to desired outcomes means that the EPA's impact on the aftermarket defeat device and tampering market is difficult to determine and that OECA cannot demonstrate the value of its NCI.

[REDACTED]

OECA demonstrated its ability to calculate emissions increases from the use of aftermarket defeat devices in four press releases that were issued from March 5, 2020, through September 15, 2021, and in the *2020 Tampered Diesel Pickup Trucks* report. However, there is no corresponding NCI strategic plan deliverable for calculating reduced or avoided emissions. Instead, the deliverables under Goal 2 focus on requirements such as:

- [REDACTED]
- [REDACTED]
- [REDACTED]

Responses to our regional questionnaire further illustrate a gap between desired program outcomes and OECA's Goal 2 deliverables. [REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

While each deliverable should support Goal 2's efforts to stop the sale of aftermarket defeat devices and to deter future CAA violations, the NCI strategic plan deliverables do not provide regions with tangible ways to measure success, and the EPA's external partners cannot link OECA's and the regions' activities to the achievement of deterrence.

When we discussed the lack of quantifiable metrics with OECA staff, they said that it is difficult to measure outcomes of enforcement activities, especially when dealing with an unknown totality of aftermarket defeat devices and tampered vehicles. OECA's decision to not measure reductions in existing emissions, avoidance of new excess emissions, and reductions in aftermarket defeat devices reaching the roadways does not align with OECA's actions. For example, OECA has developed an emissions calculator for aftermarket defeat device casework and has estimated a possible baseline of noncompliance in the 2020 *Tampered Diesel Pickup Trucks* report. OECA also has the ability to set reasonable compliance-rate baselines for reducing or avoiding the introduction of aftermarket defeat devices and associated excess emissions.

When asked how OECA validates its claims of tangible success, the then-chair of the NCI Steering Committee cited the decreased visibility of aftermarket defeat devices in online search engines as a viable measurement of success. However, the decreased visibility of aftermarket defeat devices in online searches is not included as an NCI strategic plan deliverable.

OECA Must Improve Communication and Partnership with States in Support of Goals 2 and 3

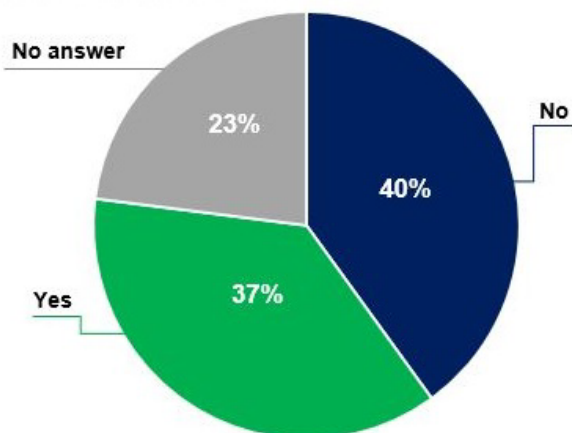
The *Tampered Diesel Pickup Trucks* report note that it is essential that OECA improve its partnerships with states to prevent the registration, use, and resale of tampered vehicles. The cover letter for the *Tampered Diesel Pickup Trucks* report states:

Partnering with states is a core objective of our National Compliance Initiative because we believe that state efforts could complement EPA's work and help to reduce noncompliance. Indeed, federal-state partnerships are how we have successfully dealt with gross emitters on our roads for decades.

However, three states reported that they were not aware of the EPA’s NCI until they found out about it through our state questionnaire. In addition, of the 30 state respondents, 12 (40 percent) did not believe that the EPA’s information and assistance under the NCI allowed them to target their efforts to stop the use of aftermarket defeat devices and tampered vehicles. Fifteen states (50 percent) had never been invited to the EPA’s technical or legal training, and nine states (30 percent) identified a lack of guidance and technical knowledge as barriers to their efforts to stop aftermarket defeat devices. Figure 7 depicts the state responses to one of the questions in our state questionnaire.

Figure 7: EPA communication is not effectively promoting state partnership*

Did the information or assistance that the EPA provided allow your state or organization to target efforts to stop the use of aftermarket defeat devices and tampered vehicles?



Source: Analysis of state questionnaire responses. (EPA OIG image)

* Percentages are based on 30 respondents.

The NCI focuses on ending the supply of aftermarket defeat devices, [REDACTED]. Partnerships with states present an opportunity for complementary work to stop aftermarket defeat devices, but OECA must first effectively communicate with states to overcome barriers to participation.

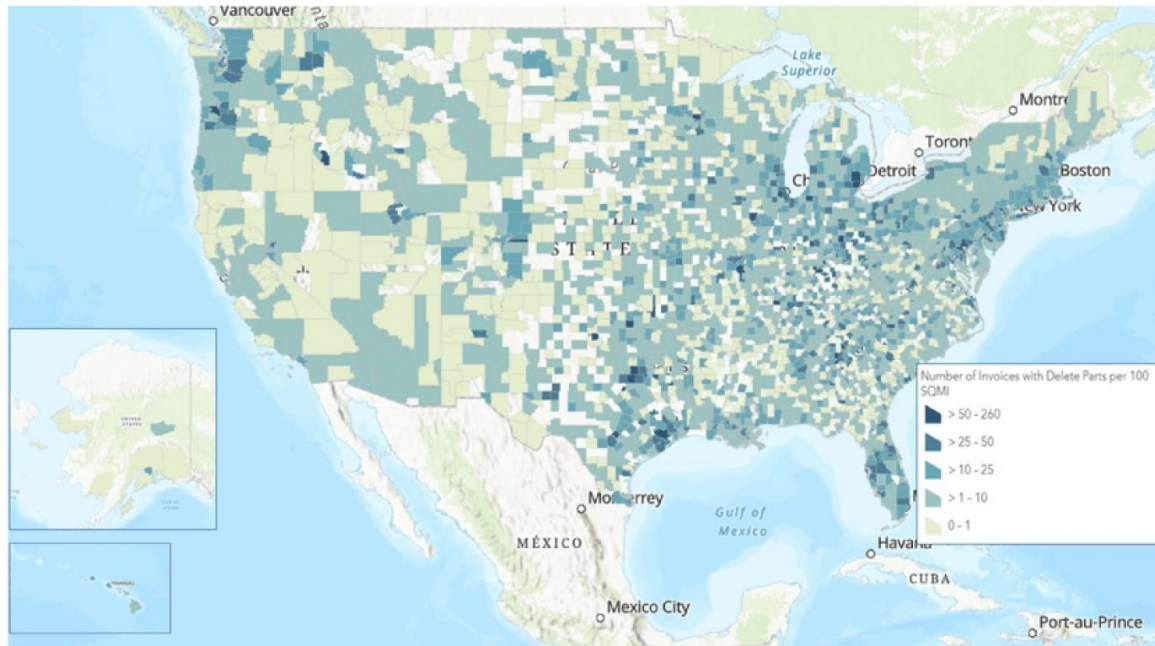
Detailed Data from OECA Would Improve the States’ Ability to Target Aftermarket Defeat Devices

OECA shared enforcement data via maps and tables in the *Tampered Diesel Pickup Trucks* report. The maps and tables that OECA provided in that report, however, do not contain detailed information to help states target illegal activity in their jurisdictions. Figure 8 shows the most detailed map that OECA provides in the *Tampered Diesel Pickup Trucks* report. The map shows the number of unique invoices for tampering hardware per 100 square miles at the county level, but the counties are not labeled, which makes it difficult for states to allocate inspection and enforcement resources to a particular county or jurisdiction. In addition, the map is limited to Class 2b and 3 diesel trucks that have had their emissions-control hardware completely removed.

As such, the map excludes:

- Partially tampered diesel trucks, such as trucks in which the original emissions controls are still installed but in which the effectiveness of those controls was reduced by software changes.
- Certain classes of diesel trucks, such as heavy-duty trucks.
- Vehicles other than trucks, such as minivans.
- Vehicles powered by nondiesel fuels, such as gasoline.

Figure 8: Map from the *Tampered Diesel Pickup Trucks* report



Source: OECA map from the *Tampered Diesel Pickup Trucks* report. (EPA image)

In interviews, staff from nine states indicated that they need additional guidance, data, information, and training from the EPA. For example, to support targeted inspections, staff from three states said that they need more specific data, such as vehicle identification numbers, addresses, and common violator vehicle types. The then-chair of the NCI Steering Committee stated that OECA's reluctance to provide enforcement data to states is based on concerns over the release of personally identifiable information and confidential business information. **Personally identifiable information** is information about an individual that can be used to distinguish, trace, or identify that individual. **Confidential business information** involves trade secrets and commercial or financial information that is privileged or confidential from public disclosure. According to the then-chair, OECA cannot share such information and does not know the threshold for when aggregated and anonymized data can be shared with the states.

Based on an interview with attorneys from the EPA's Office of General Counsel, it is our assessment that OECA's concerns regarding

Examples of needs expressed by states to the OIG

States indicated that they needed answers to the following questions:

- Which EPA staff should the state contact to determine whether planned updates to an inspection and maintenance program oversteps the state's legal authority?
- How does the NCI interact with the state's policies that were developed before the NCI?
- How does the EPA identify tampering?

the release of confidential business information may be overstated. According to one EPA attorney, the EPA can share confidential business information with the states as long as the receiving party implements CAA regulations, protects the data from public disclosure, and makes a written request for such information.⁶ Further, another EPA attorney stated that program offices frequently release aggregated information, although they must first take steps to protect the identity of businesses and other information claimed as confidential.

Regarding the use of personally identifiable information, the U.S. Census Bureau collects sensitive information, like that collected by OECA, from businesses and U.S. residents. Using these sensitive data, the Census Bureau releases facts and figures about America’s people, places, and economy. Much of these data are released at the census-block level, which can be as small as 30,000 square feet. To protect the privacy of respondents, the Census Bureau disguises the original data in such a way that the results are still useful—for example, by aggregating the information until individual respondents cannot be identified. OECA could also release enforcement data in a format that protects individuals and businesses while granting states the ability to target their enforcement efforts.

Other Barriers Hinder States from Complementing the EPA’s NCI Efforts

In response to our questionnaire, 19 (approximately 63 percent) of 30 states said that they face resource barriers, while 11 states (approximately 37 percent) reported a lack of legal authority to pursue aftermarket defeat devices. Staff from eight states indicated that they are interested in participating or are already participating in the NCI. Three states expressed interest in developing a state-level program to combat aftermarket defeat devices, but they noted that the EPA needs to offer incentives, such as giving states credit for reducing excess emissions from aftermarket defeat devices, as part of individual state implementation plans.

Key Terms

A **state implementation plan** is a collection of regulations and documents used by a state, territory, or local air district to implement, maintain, and enforce air-quality standards and fulfill other requirements of the CAA. A state implementation plan may outline the state’s inspection and maintenance program.

State implementation plan credits are “emission reductions, achieved by using technologies or strategies, used by a state for the purpose of meeting emission-reduction requirements” under the plan, as defined in the EPA’s *Guidance on SIP Credits for Emission Reductions from Electric-Sector Energy Efficiency and Renewable Energy Measures* document, dated August 5, 2004.

According to OECA, as of January 6, 2021, OECA and the Office of Transportation and Air Quality were discussing whether enhanced state efforts to stop tampering can be counted as credits in state implementation plans. OECA’s discussion with the Office of Transportation and Air Quality includes accounting for tampering in the motor vehicle emission simulator model. The EPA’s **motor vehicle emission simulator** is a state-of-the-science emissions modeling system that estimates geographic--specific emissions for mobile sources for certain air pollutants, greenhouse gases, and air toxics. Staff from three states agreed with this idea, stating that the addition of excess emissions to the motor vehicle emission simulator model and to their inspection and maintenance programs would create incentives for the states to pursue noncompliant vehicles.

⁶ The EPA’s authorized disclosure of CAA confidential business information is regulated under 40 C.F.R. § 2.301(h)(3).

State Collaboration May Improve Air Quality, but Barriers Must Be Overcome

There are numerous challenges inhibiting the EPA's ability to effectively promote NCI strategic plan Goal 3 to engage states to curtail demand for aftermarket defeat devices. Given that the CAA does not allow OECA to delegate CAA section 203 responsibilities to the states, state efforts to complement the EPA's NCI work are voluntary. According to OECA staff, voluntary collaboration means states will often have unique and varied laws. For example, some states may have laws that focus on emissions testing, while other states may have laws that make selling a tampered vehicle illegal. Some states may have no relevant laws at all. Even the states with laws that complement the EPA's efforts may be limited to addressing aftermarket defeat devices in the portions of their states with poor air quality, such as Indiana, where vehicle emissions testing is only required in two (roughly 2 percent) out of 92 counties. States may also be limited by low penalties that disincentivize the states from allocating their enforcement resources to the issue. As such, there is no single appropriate approach for the EPA to coordinate with the states.

According to the staff we interviewed from three states and OECA, states have no formal incentive, such as the aforementioned state implementation plan credits, to complement the EPA's NCI work. Staff from OECA and three regions said that states are unlikely to engage in complementary efforts simply because they have no obligation to do so. OECA also stated that it was unwilling to provide advice to states on creating specific programs; OECA was told that such assistance could be viewed as lobbying states to develop voluntary programs, which OECA believes is not allowed. However, OECA could not cite any federal law or guidance that prohibits OECA from providing this type of assistance.

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]. Understanding the barriers to states engaging in voluntary, complementary efforts can help OECA develop a strategy to overcome those barriers. Effective collaboration with states is needed to prevent excess emissions from aftermarket defeat devices and tampered vehicles, particularly in states that have yet to collaborate with OECA and the regions. Without state involvement, excess emissions from aftermarket defeat devices and tampered vehicles threaten public and environmental health.

Conclusions

[REDACTED]

[REDACTED] Without sufficient metrics, it is difficult to determine progress toward NCI goals and to correct deficiencies in NCI implementation. Further, despite OECA's activities to prevent new aftermarket defeat devices from entering the market, OECA and regional staff perspectives do not match the vision of the NCI strategic plan. Aftermarket defeat devices and tampered vehicles will continue to allow the release of excess emissions unless additional steps are taken to promote voluntary state efforts to complement the EPA's NCI work.

Recommendations

We recommend that the assistant administrator for Enforcement and Compliance Assurance:

3. In collaboration with EPA regions, revise and reissue the strategic plan for the *Stopping Aftermarket Defeat Devices for Vehicles and Engines* National Compliance Initiative. In addition, ensure the strategic plan includes quantifiable deliverables that are linked to known compliance-rate baselines that promote the success of the initiative, as well as a mechanism to acquire and implement post-training feedback from regions and states.
4. Work with the Office of General Counsel to provide training for headquarters and regional enforcement staff and to release enforcement data, as appropriate and consistent with applicable legal requirements, that states can use to target and deter the installation and use of aftermarket defeat devices within their jurisdictions.
5. Use the OIG's state questionnaire results, as well as feedback from regions and states, to identify and implement a strategy to overcome barriers and incentivize voluntary complementary work by the states to stop aftermarket defeat devices and tampering.

Agency Response and OIG Assessment

Appendix B includes the Agency's response to our draft report.⁷ In its response, OECA disagreed, in part, with our original recommendations in this chapter. In particular, it disagreed with and offered alternative language for original Recommendations 3, 5, and 6. It agreed, in principle, with Recommendation 4, with revised language. Based on our assessment of the Agency's response, we deleted our original Recommendation 5, which was to conduct a national needs assessment to determine state barriers to voluntary participation in the NCI. Recommendation 6 in the draft report is now Recommendation 5 in the final report.

In its response to Recommendation 3, OECA said that it cannot establish quantifiable deliverables linked to known compliance-rate baselines that promote the success of the initiative because OECA would need to know the totality of companies that manufacture or sell these devices. OECA notes that its *Tampered Diesel Pickup Trucks* report is not an estimate of nationwide tampering. We acknowledge that the *Tampered Diesel Pickup Trucks* report does not capture the totality of noncompliance. As we clarify in our report, at least one OECA subject-matter expert suggested that the noncompliance rate was as high as 40 percent of all diesel trucks, which exceeds the noncompliance rate cited in the *Tampered Diesel Pickup Trucks* report. We also state that the lack of quantifiable deliverables related to desired outcomes means that the EPA's impact on the aftermarket defeat device and tampering market is difficult to determine. In the *Tampered Diesel Pickup Trucks* report, OECA estimates noncompliance based on its casework. We believe that using the best available noncompliance data to create metrics and track progress toward meeting those metrics will allow OECA to demonstrate reductions in known or suspected noncompliance. Further, OECA could update these metric baselines as it acquires new information on noncompliance. With respect to the rest of Recommendation 3, OECA agreed with the intent of our recommendation to acquire and implement post-training feedback, but OECA said it already conducts this work and, therefore, does not need to incorporate such a metric into the strategic plan document. However, our interviews with the EPA regions revealed that subject-matter expert concerns regarding the trainings were brought to OECA's attention but not corrected. Specific metrics, in this case, would allow OECA to demonstrate its commitment to continuous and meaningful improvement to its trainings. This recommendation remains unresolved.

OECA agreed with our original Recommendation 4 to work with the Office of General Counsel to release enforcement data to the states. OECA requested, however, to limit the recommendation to working with the Office of General Counsel to provide training to OECA and the regions that specifically focuses on legal requirements for sharing confidential business information and personally identifiable information with the states. We agree with the addition of Office of General Counsel training and revised Recommendation 4 accordingly. We note, however, that the Agency's proposed alternative recommendation will not ensure that states interested in conducting complementary work to stop aftermarket defeat devices and tampering will have access to all the legally available data necessary to target their state enforcement efforts. Aftermarket defeat devices and tampered vehicles will continue to allow the release of excess emissions unless steps are taken to promote voluntary state efforts to complement the NCI. This recommendation remains unresolved.

OECA disagreed with our original Recommendations 5 and 6, noting that the EPA cannot delegate the authority to enforce section 203 of the CAA to the states. In its response to our draft report, OECA states that the goal of the NCI was to encourage complementary state action based on a state's own laws and

⁷ OECA also provided separate technical comments, which we used to update the report where appropriate.

authorities. Further, OECA notes that we identified what it considers to be the primary barriers to states conducting complementary work to stop aftermarket defeat devices and tampering. OECA also said that conducting a national needs assessment would divert resources away from its enforcement responsibilities. As an alternative to our original Recommendations 5 and 6, OECA proposed that it (1) continue its efforts to encourage the EPA's Office of Transportation and Air Quality to analyze the state implementation plan credit issue and update its emission models; (2) participate in multistate associations when requested and when staff is available; and (3) invite states to, and track their participation in, trainings related to aftermarket defeat devices and tampering. Our report recognizes that the CAA does not allow the EPA to delegate section 203 responsibilities to the states. We intended for OECA to interpret our discussion of the states' role as essential and complementary to the EPA's work. OECA's proposed alternative recommendation does not fully resolve the issue we identified: that interested states are not receiving information from the EPA that would most help them conduct complementary work. However, we acknowledge that the recommendation to conduct a national needs assessment may hinder the completion of regular enforcement work, and we agree that OECA can rely on our assessment of state barriers to identify methods to overcome those barriers. Accordingly, we have deleted draft Recommendation 5 to conduct a needs assessment and amended Recommendation 6. This recommendation remains unresolved.

Status of Recommendations

RECOMMENDATIONS

Rec. No.	Page No.	Subject	Status ¹	Action Official	Planned Completion Date
1	15	Develop guidance for the regions that outlines how to interpret, track, and report metrics and that defines vague terms used in the EPA's <i>Stopping Aftermarket Defeat Devices for Vehicles and Engines</i> National Compliance Initiative strategic plan.	U	Assistant Administrator for Enforcement and Compliance Assurance	
2	15	Update the EPA's <i>Stopping Aftermarket Defeat Devices for Vehicles and Engines</i> National Compliance Initiative strategic plan so that the National Compliance Initiative goals can be achieved in the event of a pandemic or other challenge.	U	Assistant Administrator for Enforcement and Compliance Assurance	
3	24	In collaboration with EPA regions, revise and reissue the strategic plan for the <i>Stopping Aftermarket Defeat Devices for Vehicles and Engines</i> National Compliance Initiative. In addition, ensure the strategic plan includes quantifiable deliverables that are linked to known compliance-rate baselines that promote the success of the initiative, as well as a mechanism to acquire and implement post-training feedback from regions and states.	U	Assistant Administrator for Enforcement and Compliance Assurance	
4	24	Work with the Office of General Counsel to provide training for headquarters and regional enforcement staff and to release enforcement data, as appropriate and consistent with applicable legal requirements, that states can use to target and deter the installation and use of aftermarket defeat devices within their jurisdictions.	U	Assistant Administrator for Enforcement and Compliance Assurance	
5	24	Use the OIG's state questionnaire results, as well as feedback from regions and states, to identify and implement a strategy to overcome barriers and incentivize voluntary complementary work by the states to stop aftermarket defeat devices and tampering.	U	Assistant Administrator for Enforcement and Compliance Assurance	

¹ C = Corrective action completed.

R = Recommendation resolved with corrective action pending.

U = Recommendation unresolved with resolution efforts in progress.

NCI Strategic Plan Goals and Measures

Tables A-1 through A-4 list the metrics we used to draw conclusions in support of our evaluation objectives. Table A-5 provides details regarding the “Environmental Justice Addendum.” For each metric, as appropriate, we asked OECA to provide a self-assessment as to the status of the metric, which we report in the gray column. As shown in the green columns, we did not assess all metrics, but for the metrics we did assess, we independently determined the status of the metric. Our analysis of the metric status is summarized by the following symbols:

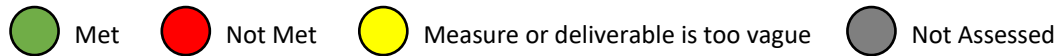







Table A-1: NCI strategic plan Goal 1 measures and deliverables

Goal 1: Develop a national mobile source compliance program with participation of every region			
Metric, as stated in the NCI strategic plan	OECA self-assessment	OIG analysis	
	Was metric met?	Assessment of the EPA’s actions	Was metric met?
Measure 1-1			
[REDACTED]	Yes	[REDACTED]	●
Deliverable 1-1-1	This is complete	[REDACTED]	●
Deliverable 1-1-2	Yes/on-going	N/A. [REDACTED]	●
Deliverable 1-1-3	Yes/on-going	[REDACTED]	●
Measure 1-2			
[REDACTED]	N/A	N/A. We assessed most deliverables under this measure but not the measure itself.	●
Deliverable 1-2-1	Yes/on-going	N/A. We did not assess this deliverable.	●

Goal 1: Develop a national mobile source compliance program with participation of every region

Metric, as stated in the NCI strategic plan		OECA self-assessment	OIG analysis	
		Was metric met?	Assessment of the EPA's actions	Was metric met?
Deliverable 1-2-2	[REDACTED]	Yes/on-going	[REDACTED] so this deliverable was not met.	
Deliverable 1-2-3	[REDACTED]	Yes/on-going	[REDACTED], this deliverable has been met.	
Deliverable 1-2-4	[REDACTED]	Yes/on-going	N/A. We did not assess this deliverable based on its similarity to Deliverable 1-2-3.	
Deliverable 1-2-5	[REDACTED]	Yes/on-going	[REDACTED]	
Deliverable 1-2-6	[REDACTED]	Yes/on-going	[REDACTED]	
Measure 1-3				
	[REDACTED]	N/A	N/A. We assessed most deliverables under this measure but not the measure itself.	
Deliverable 1-3-1	[REDACTED]	Yes/on-going	[REDACTED]	









Goal 1: Develop a national mobile source compliance program with participation of every region




Metric, as stated in the NCI strategic plan		OECA self-assessment	OIG analysis	
		Was metric met?	Assessment of the EPA's actions	Was metric met?
Deliverable 1-3-2	[REDACTED]	Yes/on-going	[REDACTED]	
Deliverable 1-3-3	[REDACTED]	Yes/on-going	[REDACTED], meaning the deliverable itself is not quantifiable and measurable. Based on this observation and the lack of tangible alternative deliverables, we determined that the language for this deliverable is too vague to determine whether it has been met.	
Measure 1-4				
	[REDACTED]	N/A	N/A. We assessed all deliverables under this measure but not the measure itself.	
Deliverable 1-4-1	[REDACTED]	Yes, complete. Issued on January 18, 2021.	[REDACTED]	
Deliverable 1-4-2	[REDACTED]	Yes/on-going.	[REDACTED]	

Note: AED = Air Enforcement Division; DOJ = Department of Justice; N/A = Not Applicable

Source: The NCI strategic plan, OECA's self-assessment of metric status, and OIG analysis of metric status. (EPA OIG table)

Table A-2: NCI strategic plan Goal 2 measures and deliverables



Goal 2: Identify and stop the sale and installation of aftermarket defeat devices and achieve deterrence			
Metric, as stated in the NCI strategic plan	OECA self-assessment	OIG analysis	
	Was metric met?	Assessment of the EPA's actions	Was metric met?
Measure 2-1			
[REDACTED]	Yes/on-going	N/A. We assessed all the deliverables under this measure but not the measure itself.	
Deliverable 2-1-1	Yes/on-going	[REDACTED]	
Deliverable 2-1-2	Yes/on-going	[REDACTED]	
Measure 2-2			
[REDACTED]	N/A	N/A. We attempted to assess the deliverables under this measure but did not assess the measure itself.	
Deliverable 2-2-1	Yes/on-going	[REDACTED] Given that any action can satisfy this deliverable, the deliverable is too vague to assess.	
Deliverable 2-2-2	Yes/on-going	[REDACTED] The deliverable is too vague to assess.	
Measure 2-3			
[REDACTED]	N/A	N/A. We assessed some deliverables under this measure but not the measure itself.	
Deliverable 2-3-1	Yes/on-going	On April 30, 2020, the EPA issued a national press release highlighting cumulative cases since 2015, but no press release was published in 2021.	

Goal 2: Identify and stop the sale and installation of aftermarket defeat devices and achieve deterrence				
Metric, as stated in the NCI strategic plan		OECA self-assessment	OIG analysis	
		Was metric met?	Assessment of the EPA's actions	Was metric met?
Deliverable 2-3-2	[REDACTED]	Yes/on-going	[REDACTED] Given the lack of tangible action required by this deliverable, the deliverable is too vague to assess.	
Deliverable 2-3-3	[REDACTED]	Yes/complete	[REDACTED]	
Deliverable 2-3-4	[REDACTED]	Yes/on-going	The deliverable does not contain a frequency [REDACTED] As a result, the deliverable is too vague to assess.	






Note: AED = Air Enforcement Division; DOJ = Department of Justice; N/A = Not Applicable

Source: The NCI strategic plan, OECA's self-assessment of metric status, and OIG analysis of metric status. (EPA OIG table)

Table A-3: NCI strategic plan Goal 3 measures and deliverables

Goal 3: Engage states to curtail demand for aftermarket defeat devices				
Metric, as stated in the NCI strategic plan		OECA self-assessment	OIG analysis	
		Was metric met?	Assessment of the EPA's actions	Was metric met?
Measure 3-1				
	[REDACTED]	N/A	N/A. We assessed most deliverables under this measure but not the measure itself.	
Deliverable 3-1-1	[REDACTED]	Yes/complete	[REDACTED] Based on OECA's statement and a lack of evidence in interviews and questionnaire responses that such activity is occurring, we concluded that this metric was not met.	

Goal 3: Engage states to curtail demand for aftermarket defeat devices

Metric, as stated in the NCI strategic plan		OECA self-assessment	OIG analysis	
		Was metric met?	Assessment of the EPA's actions	Was metric met?
Deliverable 3-1-2	[REDACTED]	Yes/on-going	[REDACTED] This metric is too vague to assess.	
Deliverable 3-1-3	[REDACTED]	Yes/on-going	[REDACTED]	
Measure 3-2				
	[REDACTED]	N/A	N/A. We assessed one deliverable under this measure but not the measure itself.	
Deliverable 3-2-1	[REDACTED]	Yes/complete	[REDACTED]	
Deliverable 3-2-2	[REDACTED]	Yes/on-going	N/A. We did not interview or question organizations comprising state clean air agencies.	

Note: AED = Air Enforcement Division; N/A = Not Applicable

Source: The NCI strategic plan, OECA's self-assessment of metric status, and OIG analysis of metric status. (EPA OIG table)

Table A-4: NCI strategic plan Goal 4 measures and deliverables

Goal 4: Review of NCI implementation strategy			
Metric, as stated in the NCI strategic plan	OECA self-assessment	OIG analysis	
	Was metric met?	Assessment of the EPA's actions	Was metric met?
Goal 4			
No measures or deliverables exist for this goal. We assigned this goal a "not assessed" status due to the lack of metrics.	N/A	N/A. [REDACTED]	

Note: N/A = Not Applicable

Source: The NCI strategic plan, OECA's self-assessment of metric status, and OIG analysis of metric status. (EPA OIG table)

Table A-5: NCI strategic plan "Environmental Justice Addendum" measures and deliverables

Addendum: Make a concerted effort to benefit specific communities unduly impacted by mobile sources of air pollution and specifically those communities in nonattainment with National Ambient Air Quality Standards for ozone			
Metric, as stated in the NCI strategic plan	OECA self-assessment	OIG analysis	
	Was metric met?	Assessment of the EPA's actions	Was metric met?
EJ Deliverable-1 [REDACTED]	Not in original strategic plan	N/A. The deadline for this deliverable is the end of FY 2022. Based on the deadline, we did not evaluate this deliverable for completion.	
EJ Deliverable-2 [REDACTED]	Not in original strategic plan	[REDACTED] meaning both components of this deliverable were not met.	
EJ Deliverable-3 [REDACTED]	Not in original strategic plan	N/A. We did not evaluate this deliverable for completion.	

Note: AED = Air Enforcement Division; N/A = Not Applicable

Source: The NCI strategic plan and OIG analysis of metric status. (EPA OIG table)

Agency Response to Draft Report



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

OFFICE OF
ENFORCEMENT AND
COMPLIANCE ASSURANCE

October 21, 2022

MEMORANDUM

SUBJECT: Response to the Office of Inspector General Draft Report, *The EPA is Not on Track to Reach Its National Compliance Initiative Goals to Stop Aftermarket Defeat Devices and Tampered Vehicles*, Project No. OSRE-FY21-0228, September 22, 2022

FROM: Lawrence E. Starfield, Acting Assistant Administrator

TO: Patrick Gilbride, Director
Implementation, Execution, and Enforcement Directorate
Office of Special Review and Evaluation
Office of Inspector General

LAWRENCE
STARFIELD

Digitally signed by
LAWRENCE STARFIELD
Date: 2022.10.21
15:00:15 -04'00'

Thank you for the opportunity to respond to the recommendations in the subject draft report. As the draft report notes, much of the work that occurred since this National Compliance Initiative (NCI) began in FY 2020 has been dominated by impacts of the COVID-19 pandemic and associated restrictions. Despite this challenge, the Office of Enforcement and Compliance Assurance (OECA) and the EPA regions have made significant progress toward achieving the goals of this NCI, and these accomplishments provide important context for our response to the draft OIG report. Work completed under this NCI includes the following:

- Resolving approximately 130 cases since the inception of the NCI in FY 2020, including a remarkable 40 civil enforcement cases in FY 2021 alone – the greatest number of resolutions for tampering and aftermarket defeat devices for any one year in the agency’s history. These enforcement cases stopped the manufacture and sale of devices intended to defeat required emission controls on vehicles and engines used on public roads. Many of these enforcement settlements can be found at <https://www.epa.gov/enforcement/clean-air-act-vehicle-and-engine-enforcement-case-resolutions>.
- Filing complaints against the following companies seeking compliance with the Clean Air Act:
 - Gear Box Z (10/3/2020)
 - Borla Performance Industries (8/6/2020)
 - Keystone Automotive Operations (1/29/21)

- EZ Lynk (3/8/2021)
- Power Performance Enterprises (3/15/2022)
- Diesel Ops (12/15/2021)
- Rudy's Performance Parts (6/29/2022)
- River City Diesel (8/30/2022)
- Assessing over \$33 million in civil penalties in our settled cases.
- Addressing over 460,000 violations in our settled cases.
- Obtaining the first court ordered preliminary injunction against a manufacturer and retailer of defeat devices. [Gear Box Z](#) refused to stop manufacturing and selling defeat devices until the United States District Court for the District of Arizona granted the United States' motion for a preliminary injunction on March 18, 2021. This legal precedent has put the industry on notice that the United States will vigorously enforce the Clean Air Act's prohibitions on defeat devices and now serves as a model for other cases.
- Conducting a comprehensive analysis and publishing a report on [Tampered Diesel Pickup Trucks](#) that was undertaken to convey to our state partners information about the impact of tampering and aftermarket defeat devices on air quality. The report showed the emissions impact of tampering in just a subset of EPA's closed enforcement cases resulted in more than 570,000 tons of excess NOx and 5,000 tons of excess particulate matter (PM) over the lifetime of the tampered trucks.
- Revising and updating the relevant enforcement [penalty policy](#) to directly address aftermarket defeat devices and tampering. The policy provides a penalty framework that the EPA regions and headquarters can use to achieve national consistency and reflects the egregiousness of the harm in these cases.
- Issuing an EPA Enforcement Policy on Vehicle and Engine Tampering and Aftermarket Defeat Devices – [the Tampering Policy](#). The policy provides guidance to the regulated industry on how EPA will use enforcement discretion to ensure we achieve the human health and environmental health protections Congress intended by enforcing the Clean Air Act's prohibitions on tampering and defeat devices while not unduly restraining commerce in the aftermarket sales and service industry.
- Forging successful partnerships with states including providing tampering and aftermarket defeat device trainings attended by 33 states and the District of Columbia and providing support to states performing inspections and taking enforcement actions for violations of state laws concerning tampering.
- Continuing our regular coordination and partnership with the California Air Resources Board. California plays a large role in aftermarket parts nationwide, including enforcing their own state laws against defeat devices.
- Engaging in outreach to stakeholder groups, including states and trade associations, on tampering and aftermarket defeat devices and giving numerous presentations.
- Issuing an [Enforcement Alert](#) and [Fact Sheet](#) on Tampering and Defeat Devices, publishing an [Anti-Tampering Pamphlet](#) and [Poster](#), and issuing two dozen press releases. All of these compliance assistance efforts enhance the deterrence achieved by the casework and increase public awareness of the issue.

The following is our response to each of the report recommendations. OECA, in coordination with the Office of General Counsel (OGC) and the regions, agrees with Recommendation 1 and agrees with Recommendation 4 with revisions, and has provided a high-level intended corrective

action and estimated completion date for each. OECA disagrees with Recommendations 2, 3, 5, and 6, and provides alternative recommendations for each of these. Additionally, attached are technical comments on the draft report.

As a threshold matter, and as previously discussed with OIG, **it is important to note that the draft report contains a significant amount of enforcement sensitive information that should not be released to the public, for reasons explained below:**

- The draft report is interwoven with discussions of the number of EPA inspectors participating in the NCI, the geographic distribution of inspection resources, inspector training, inspection techniques, factors that inform where inspections will be performed, and state enforcement activity; their publication would undermine deterrence.
- The report also contains numerous disclosures of internal law enforcement resources and techniques used to identify noncompliance and inform EPA's exercise of its enforcement discretion. Releasing information about these resources and techniques would chill EPA's internal deliberations and risk circumvention of the law as regulated entities could structure their activities to evade detection or enforcement.
- The draft report presents information, including comments from OECA or regional staff without attribution or support, which are incorrect, misleading, or deliberative, release of which risks creating public confusion about what information is available to EPA, the bases for certain EPA decision-making, and what the law requires.

Releasing information on OECA's internal enforcement strategy could undermine our enforcement efforts (for example by disclosing how we target potential non-compliance), create litigation risk in ongoing cases, and result in a loss of the deterrence impact OECA has achieved to date. The enforcement sensitive information is flagged in greater detail in the confidential attachment which should not be released to the public. Where possible, OECA provides alternative text to mitigate the harm of releasing enforcement confidential information.

AGENCY'S POSITION

Recommendation 1 – Agree

Develop guidance for the regions that outlines how to interpret, track, and report metrics and that defines vague terms used in the EPA's *Stopping Aftermarket Defeat Devices for Vehicles and Engines* National Compliance Initiative strategic plan.

RESPONSE:

We accept Recommendation 1 and provide a corrective action, as follows: OECA will develop guidance for the regions on the six specific metrics that the OIG has identified as being "vague." Specifically, the OIG identified deliverables 1-3-3, 2-2-1, 2-2-2, 2-3-2, 2-3-4, and 3-1-2 as having vague terms.

Recommendation 2 – Disagree. Alternative Recommendation Proposed

Update the EPA’s *Stopping Aftermarket Defeat Devices for Vehicles and Engines* National Compliance Initiative strategic plan so that the National Compliance Initiative goals can be achieved in the event of a pandemic or other challenge.

RESPONSE:

We disagree with Recommendation 2. In the event of a pandemic or other emergency event similar to the scale and impact of the COVID-19 global pandemic, it is difficult if not impossible to predict impacts on agency operations, and no guidance document can ensure that earlier-selected goals can still be achieved. Further, guidance that impacts agency operations will almost certainly be issued from the White House, other agencies of the federal government, EPA, and OECA in general. For example, during COVID-19, health and safety guidance documents were issued by the Centers for Disease Control and Prevention (CDC), the National Institute for Occupational Safety and Health (NIOSH), and the Occupational Safety and Health Administration (OSHA) among others. Additionally, the Office of Personnel Management issued guidance for federal agencies regarding COVID-19 “Maximum Telework.” EPA also developed numerous guidance and policies related to COVID-19 and the workplace, including a policy that allowed travel only for a subset of mission critical activities, which did not include all enforcement work. See <https://www.epa.gov/aboutepa/covid-19-safe-federal-workplace>.

Moreover, as noted by the OIG, in the rapidly evolving COVID-19 situation, OECA and regional enforcement personnel were able to pivot and adapt to the unique safety concerns and other circumstances facing us and perform the work of this NCI to the greatest extent practicable (given the constraints). Steps needed to address COVID-19 conditions could not have been reliably predicted.

Nonetheless, OECA appreciates the spirit and intent of Recommendation 2 and proposes an alternative recommendation applicable to all NCIs, as follows: OECA will review the lessons learned related to conducting enforcement during the COVID-19 pandemic and will identify and incorporate appropriate changes into the FY 2024-2027 NCI template documents so that NCI goals can be achieved – to the extent practicable – in the event of a global pandemic or other challenge, such as a long duration natural disaster.

Recommendation 3 – Disagree. Alternative Recommendation Proposed

In collaboration with the EPA regions, revise and reissue the strategic plan for the *Stopping Aftermarket Defeat Devices for Vehicles and Engines* National Compliance Initiative. In addition, ensure the strategic plan includes quantifiable deliverables that are linked to known compliance-rate baselines that promote the success of the initiative, as well as a mechanism to acquire and implement post-training feedback from regions and states.

RESPONSE:

We interpret this recommendation as containing two parts: (1) a recommendation that the strategic plan be revised to include quantifiable deliverables that are linked to known compliance-rate baselines that promote the success of the initiative and (2) a recommendation that the strategic plan be revised to include a mechanism to acquire and implement post-training feedback from regions and states.

With regard to the first portion of the recommendation that calls for ensuring the strategic plan includes quantifiable deliverables that are linked to known compliance-rate baselines that promote the success of the initiative, this is not possible to do for this NCI as there is no known compliance rate baseline. To determine a baseline, EPA would need to know the universe of companies that manufacture or sell these devices. EPA is not able to collect that type of information.

The scale of the non-compliance is largely unknown. However, EPA has received tips of non-compliance in every state and has identified tampering and aftermarket defeat devices in every state in which civil enforcement personnel have performed inspections and investigations.

The OIG report references the report issued by OECA's Air Enforcement Division which consists of a review of aggregated evidence obtained about aftermarket defeat devices in certain diesel pickup trucks. This report shows that in the past decade more than 500,000 diesel pickup trucks have had their emission controls completely removed. Although this represents approximately 13% of all diesel pickup trucks registered in the United States in 2016, this is only the tampering that the EPA has identified to date based on the Agency's investigations, and it is not an estimate of nationwide tampering rates. It is an indication, however, that the scale of non-compliance is substantial and the impacts are great.

With respect to the second portion of this recommendation – to acquire and implement post-training feedback – we agree with the intent of the recommendation. In fact, OECA already solicits feedback from all regions and states when conducting training and has received very positive feedback to date. OECA has also received suggestions on how to improve the training being offered and has already begun incorporating that feedback into the development and planning of our next round of training. The process of acquiring and implementing post-training feedback is a standard process for OECA, including for training outside of the scope of this NCI, and as such does not need to be incorporated into the NCI strategic plan document.

However, given that we agree with the OIG that acquiring and implementing post-training feedback is important, OECA offers an alternative recommendation, as follows: OECA will incorporate post-training feedback already received from regions and states at an in-person vehicle and engines training in FY 2023 and in the virtual training modules that are currently under development.

Recommendation 4 – Agree, with Revisions

Work with the Office of General Counsel to release enforcement data, as appropriate and consistent with applicable legal requirements, that states can use to target and deter the installation and use of aftermarket defeat devices within their jurisdictions.

RESPONSE:

We accept Recommendation 4 in principle, but as currently drafted, the recommendation is broad, open-ended, and difficult to measure to completion. OECA and OGC have extensively discussed and collaborated on this issue in the past. Given the applicable legal requirements that apply to the release of personally identifiable information or information claimed to be confidential business information, the recommendation must be structured to allow for a case-by-case analysis of the data at issue. Therefore, OGC and OECA recommend refining this recommendation, as follows: OGC will provide a training to OECA and the regions that is specifically focused on the legal requirements for sharing confidential business information and personally identifiable information with states.

Recommendation 5 and Recommendation 6 – Disagree. Alternative Recommendation Proposed

5. Conduct a national needs assessment to determine state barriers to voluntary participation in the *Stopping Aftermarket Defeat Devices for Vehicles and Engines* National Compliance Initiative.
6. Use the national needs assessment results from Recommendation 5 to implement a strategy to overcome barriers and incentivize voluntary participation by the states in the *Stopping Aftermarket Defeat Devices for Vehicles and Engines* National Compliance Initiative.

RESPONSE:

OECA disagrees with Recommendations 5 and 6. Title II of the Clean Air Act is a direct implementation program. The states cannot be delegated the authority to enforce the Act's tampering and defeat device provisions, and they cannot enforce Title II of the Clean Air Act even voluntarily. Rather, the goal of the NCI was to encourage complementary state action based on a state's own laws and authorities. To the extent that OIG is suggesting that EPA conduct a national assessment to determine the barriers faced by each state in conducting complementary actions to support the overarching goals of the NCI, that would require a highly resource-intensive effort that would divert OECA resources from enforcement. Moreover, we believe the OIG has already identified the primary barriers to this work: (1) state resource issues; (2) state legal authority issues; and (3) lack of incentives for states, such as state implementation plan (SIP) credit, for doing the work. It is not within OECA's purview or ability to analyze state law issues that may not be authorized under federal environmental laws.

However, OECA supports the spirit and intent of the OIG recommendations and continues to believe that states are critical partners in the effort to reduce tampering and the demand for

aftermarket defeat devices. To that end, OECA will continue to provide the Office of Transportation and Air Quality (OTAQ) with information from our enforcement work when requested to help OTAQ analyze the SIP credit issue and will encourage OTAQ to update their emission models to account for tampering. Additionally, OECA will continue to participate in training hosted by multi-state associations when requested and when OECA personnel are available (such as the training hosted by the Mid-Atlantic Regional Air Management Association (MARAMA) on January 13 and 20, 2022, and the Southeastern Team Reducing Impact of Diesel Emissions (STRIDE) webinar held on September 23, 2021). Accordingly, OECA suggests an alternative recommendation, as follows: OECA will continue to invite states to participate in OECA in-person trainings and will continue to track the number of trainings held, the number of attendees participating, and the organizations represented at the trainings.

CORRECTIVE ACTION TABLE FOR AGREED UPON RECOMMENDATIONS

OECA agrees with Recommendation 1 and Recommendation 4 (with revisions). We will implement the agreed upon corrective actions when an agreement is reached on corrective actions for all the recommendations. At that time, we will establish completion dates which will be within one year of reaching an overall agreement on all corrective actions.

	<i>Recommendation</i>	<i>High-level Intended Corrective Action(s)</i>	<i>Estimated Completion Date</i>
1	Develop guidance for the regions that outlines how to interpret, track, and report metrics and that defines vague terms used in the EPA’s <i>Stopping Aftermarket Defeat Devices for Vehicles and Engines</i> National Compliance Initiative strategic plan.	OECA will develop guidance for the regions on the six specific metrics that the OIG has identified as being “vague.” Specifically, the OIG identified deliverables 1-3-3, 2-2-1, 2-2-2, 2-3-2, 2-3-4, and 3-1-2 as having vague terms.	
4	Work with the Office of General Counsel to release enforcement data, as appropriate and consistent with applicable legal requirements, that states can use to target and deter the installation and use of aftermarket defeat devices within their jurisdictions.	The Office of General Counsel will provide a training to OECA and the regions that is specifically focused on the legal requirements for sharing confidential business information and personally identifiable information with states.	

CONTACT INFORMATION

If you have any questions regarding these comments, please contact Gwendolyn Spriggs, OECA's Audit Follow Up Coordinator, at spriggs.gwendolyn@epa.gov.

Attachment (confidential)

cc: Rosemarie Kelley, Director, OECA/OCE
Henry Barnet, Director, OECA/OCEFT
Charlotte Youngblood, Acting Associate General Counsel, General Law Office
Allison Watanabe, Lead Region Coordinator – OECA/R9

Distribution

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