

Management Implication Report: The EPA's Wood Heater Program

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OFFICE OF INSPECTOR GENERAL
U.S. ENVIRONMENTAL PROTECTION AGENCY

May 22, 2024

MEMORANDUM

SUBJECT: Management Implication Report: The EPA's Wood Heater Program

FROM: Jason Abend, Assistant Inspector General
Office of Investigations

TO: Joseph Goffman, Assistant Administrator
Office of Air and Radiation

Purpose: The U.S. Environmental Protection Agency Office of Inspector General has identified concerns regarding the Agency's failure to properly oversee and administer its Wood Heater Program. Specifically, the EPA lacked robust oversight mechanisms—such as compliance monitoring of EPA-approved labs, of third-party certifiers, and of wood heater manufacturers—to ensure that the Wood Heater Program facilitates compliance with the Clean Air Act. As a result, wood heaters that do not meet Clean Air Act standards may end up in the marketplace, increasing risks to public health and the environment.

Background: The Clean Air Act requires the EPA to establish National Ambient Air Quality Standards, or NAAQS, for six common air pollutants that can be harmful to public health and the environment, including fine particulate matter, or PM_{2.5}.¹ The EPA is responsible for monitoring these pollutants and identifying whether areas across the United States meet the NAAQS for each one. In addition, pursuant to section 111 of the Clean Air Act, the EPA must list categories of stationary sources of pollution that, in its judgement, cause or contribute significantly to the levels of the six NAAQS air pollutants. The EPA must then identify stationary sources of pollution within each of these categories. For example, the EPA identified "Energy Engines and Combustion" as a broad stationary source category of pollution, with "Residential Wood Heaters" as a specific stationary source of PM_{2.5} pollution within that category. Also pursuant to section 111 of the Clean Air Act, the EPA must develop emission standards for any new stationary source within those categories that it identifies. These emission standards are generally known as New Source Performance Standards, or NSPS, and reflect emission limitations achievable through the application of the "best system of emission reduction."

In 1988, after the EPA identified residential wood heaters, such as wood and pellet stoves, hydronic heaters, and forced-air furnaces, as a new stationary source of PM_{2.5} pollution, it issued the first NSPS

¹ In addition to particulate matter (fine and coarse), the other five pollutants regulated under the NAAQS are carbon monoxide, lead, nitrogen oxides, ozone, and sulfur dioxides.

for wood heaters, which limited the allowable amount of PM_{2.5} emissions from those appliances. The 1988 wood heater NSPS remained in effect for more than 25 years. On March 16, 2015, the EPA issued a revised wood heater NSPS, which became effective on May 15, 2015, and which reduced the allowable PM_{2.5} emissions.

The 2015 NSPS established a two-phased approach for wood heater manufacturers to meet the revised standards for PM_{2.5} emissions. The first phase required manufacturers to comply with an emission standard of 4.5 grams of PM_{2.5} per hour upon the effective date of the 2015 NSPS. The second phase required manufacturers to comply with an emission standard of 2.0 or 2.5 grams of PM_{2.5} per hour, depending on the type of fuel used to conduct the emission testing. Manufacturers were to comply with the Phase 2 standards within five years of the 2015 NSPS effective date, or by May 15, 2020.

The EPA's Wood Heater Program is responsible for ensuring that wood heaters sold in the United States comply with the latest NSPS. To that end, a manufacturer seeking to sell a model of wood heater in the United States must submit an application to the Wood Heater Program and have its wood heater undergo testing at an EPA-approved lab to demonstrate that the wood heater complies with applicable PM_{2.5} emission standards. The NSPS prescribes the test methods that the approved labs can use for the certification test but allows the EPA to consider the use of alternative test methods on a case-by-case basis. In addition, each application that a manufacturer submits to the EPA must be accompanied by a certificate of conformity, which is provided to the manufacturer by a *third-party certifier* if it determines that the emissions testing has been conducted appropriately and other conditions have been satisfied. If the EPA determines that the submitted application contains all the required information and the wood heater passes the certification test, the EPA then issues a *certificate of compliance* for the model line. A manufacturer cannot sell a model of wood heater before obtaining a certificate of compliance.²

After a wood heater receives a certificate of compliance, the EPA's Wood Heater Program oversees and conducts compliance monitoring to ensure that the manufacturer and the wood heater are operating as required. The EPA has the authority to suspend and revoke a certificate of compliance under certain circumstances. In addition, 40 C.F.R. § 60.535(b) provides that the Agency may revoke the EPA lab approval for several reasons, including if the lab "does not follow required procedures or practices" or "has falsified data or otherwise misrepresented emission data."

In February 2022, we initiated an investigation of the Wood Heater Program. Our initial results found that the EPA was not detecting discrepancies in the Wood Heater Program's certificate-of-compliance process. We also found that the EPA may not always be taking mitigating action when it has determined that labs, manufacturers, or wood heaters are in noncompliance with NSPS requirements. As a result, there is a risk that manufacturers continue to sell wood heaters that do not meet the 2015 NSPS, which may negatively impact human health and the environment.

² 40 C.F.R. § 60.533.

Concerns Identified: We found that EPA-approved labs did not always follow NSPS requirements. For example, we found that one EPA-approved lab also served as the third-party certifier to verify its own test report, which is inconsistent with the EPA’s definition of the third-party certifier as “an independent third party.” Despite this inconsistency, the EPA approved the application from this manufacturer and granted it a certificate of compliance for its wood heaters. This manufacturer then proceeded to sell thousands of improperly certified wood heaters in the United States. Only after it received complaints from other wood heater manufacturers did the EPA identify the certification-test and third-party-certifier irregularities. Even after identifying these irregularities, the EPA did not revoke the certificate of compliance, and the lab remained approved by the EPA. These findings raise concerns regarding impartiality, conflicts of interest, and enforcement of program violations, especially in cases where the EPA is allowing known noncompliance to go unaddressed.

We also found that an EPA-approved lab did not always follow applicable NSPS or alternative test methods. In one case, the EPA authorized a manufacturer to have multiple products tested using an alternative test method. Although the EPA-approved lab deviated from the approved alternative test method when testing the products, and documentation submitted to the EPA to certify the products under the 2015 NSPS disclosed the deviation, the EPA nevertheless certified the products. After the EPA later identified the deviation and notified the manufacturer that the testing was invalid, the manufacturer agreed to have its products retested and recertified.

Furthermore, we found that manufacturers did not always properly represent their EPA wood-heater certifications in their advertising. For example, after receiving complaints about a manufacturer, the EPA reviewed the certification test results for that manufacturer’s wood heater and discovered that the manufacturer was falsely advertising its wood heater’s thermal efficiency rating. Specifically, although the wood heater achieved only a 70-percent thermal efficiency rating during the certification test, the manufacturer was advertising that it achieved a 75-percent thermal efficiency rating. This higher percent would enable purchasers to claim a tax credit for the appliance under 26 U.S.C. § 25C(d)(2)(B). In response, the EPA sent the manufacturer a cease-and-desist request via email, which the manufacturer did not act upon. As of the date of our investigation, the EPA had not conducted additional follow-up or revoked the certificate of compliance for that wood heater. Such revocation would have precluded the manufacturer from continuing to use false advertising to sell that wood heater in the United States. By not acting, the EPA also may not have prevented purchasers of that wood heater from claiming federal tax credits for an ineligible item.

In another case involving false or misleading advertising, we discovered that one manufacturer advertised and sold its wood heater before obtaining the certificate of compliance. This allowed the manufacturer to fill orders from retailers ahead of its competitors. For one retailer in particular, the manufacturer advertised and sold approximately 4,321 wood heaters before receiving the certificate of compliance, with 859, or 20 percent, being sold even before the EPA-approved lab initiated the certification test. This retailer told us that it would not have purchased the wood heaters had it known the EPA had not yet approved them for sale. During our investigation, the manufacturer told us that the

EPA region's Enforcement and Compliance Assurance Division had received complaints about the manufacturer and previously investigated these sales; however, that investigation did not lead to further action.

We also discovered that another retailer was selling wood heaters that were not compliant with the 2015 NSPS Phase 2 standards. Specifically, this retailer sold wood heaters that did not meet the Phase 2 emission requirements of either 2.0 or 2.5 grams of PM_{2.5} per hour, as applicable, and that were not otherwise exempt from meeting these requirements. Instead, this retailer advertised these noncompliant wood heaters as overstock or older models. We contacted numerous customers and former employees of this retailer, who provided photographs and documents confirming that the noncompliant appliances were purchased and installed after the Phase 2 standards' effective date of May 15, 2020.

We presented the prior two cases to the U.S. Department of Justice, which declined to prosecute. The EPA's lack of enforcement not only impacts the credibility of its programs and operations but also undercuts the government's ability to enforce consumer protection law requirements, including 15 U.S.C. § 45(a)(1), which prohibits unfair methods of competition affecting commerce by using deceptive practices.

Measures for Improvement: To address the concerns identified above, we suggest the following measures for improvement for the EPA's consideration:

- Implementing a federal criminal false statements clause in the Wood Heater Program certification application process, highlighting the manufacturers' responsibility to not make materially false statements in the application, advertisement, testing, and issuance of their products, as well as highlighting the potential legal and programmatic consequences for making such false statements.
- Supplementing the EPA's implementation of Recommendation 1 issued in *The EPA's Residential Wood Heater Program Does Not Provide Reasonable Assurance that Heaters Are Properly Tested and Certified Before Reaching Consumers*, EPA OIG Report No. [23-E-0012](#), on February 28, 2023, by:
 - Developing and implementing policies and procedures on revocation of test lab approval when labs are found to not be following NSPS requirements or to be otherwise satisfying the NSPS criteria for revocation.
 - Developing and implementing policies and procedures on reviewing and verifying the validity of third-party certifier certificates of conformity.

- Developing and implementing policies and procedures on revoking certificates of compliance for wood heaters of manufacturers that do not follow or have violated NSPS requirements.
- Informing the OIG Office of Investigations of all allegations of waste, fraud, and abuse concerning the Wood Heater Program and the related NSPS.
- When EPA enforcement and compliance personnel are conducting inquiries into possible wood heater NSPS violations, verifying and cross-referencing information provided by the lab and manufacturer in question.

Through the implementation of these measures, the EPA could bolster the efficacy of the Wood Heater Program, ensuring that the certificate-of-compliance process implements the Clean Air Act and the NSPS as intended. These measures will elevate the integrity of the Wood Heater Program and ultimately will help mitigate PM_{2.5} pollution within the air we breathe.

We are notifying you of these concerns issue so that the EPA may take the steps it deems appropriate. If you decide it is appropriate for your office to take, or plan to take, action to address these concerns, we would appreciate notification of that action. Should you have any questions regarding this report, please contact Special Agent [REDACTED] or [REDACTED] or me at [REDACTED] or Abend.Jason@epa.gov.

cc: Sean W. O'Donnell, Inspector General



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U.S. Environmental Protection Agency

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