6560-50-P

ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 241

[EPA-HQ-OLEM-2025-1609; FRL-12828-01-OLEM]

RIN 2050-AH44

Protecting Public Health and Unleashing American Energy by Facilitating Scrap Tire Pile Cleanups

AGENCY: Environmental Protection Agency (EPA).

ACTION: Proposed rule.

SUMMARY: The Environmental Protection Agency (EPA or the Agency) is proposing to improve protection of public health and recover valuable energy and mineral resources by designating scrap tires, including previously abandoned scrap tires, that are combusted in cement kilns, as non-waste fuel. In addition, the EPA is proposing to revise the definition of established tire collection program to include abandoned scrap tires that are recovered for use as fuel so they can be managed the same as collected scrap tires. These proposed regulatory changes support several goals of the Resource Conservation and Recovery Act (RCRA) by facilitating the use of abandoned scrap tires as a non-waste fuel and ingredient in Portland cement manufacturing while simultaneously reducing risks to human health and addressing environmental harms caused by tire piles. These proposed revisions are amendments to the Non-Hazardous Secondary Materials (NHSM) regulations, which establish standards and procedures for identifying whether non-hazardous secondary materials are solid wastes when legitimately used as fuels or ingredients in combustion units.

DATES: Comments must be received on or before **[INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]**.

ADDRESSES: You may send comments, identified by Docket ID No. EPA-HQ-OLEM-2025-1609 by any of the following methods:

• Federal eRulemaking Portal: https://www.regulations.gov/ (our preferred method). Follow the online instructions for submitting comments.

• Mail: U.S. Environmental Protection Agency, EPA Docket Center, OLEM Docket, Mail code 28221T, 1200 Pennsylvania Avenue NW, Washington, DC 20460.

• Hand Delivery or Courier (by scheduled appointment only): EPA Docket Center, WJC West Building, Room 3334, 1301 Constitution Avenue, NW, Washington, DC 20004. The Docket Center's hours of operation are 8:30 a.m.-4:30 p.m., Monday-Friday (except Federal Holidays).

Instructions: All submissions received must include the Docket ID No. for this rulemaking. Comments received may be posted without change to https://www.regulations.gov/, including any personal information provided. We encourage the public to submit comments via https://www.regulations.gov/ or email, as there may be a delay in processing mail and faxes. Hand deliveries and couriers may be received by scheduled appointment only. For further information on EPA Docket Center services and the current status, please visit us online at https://www.epa.gov/dockets.

FOR FURTHER INFORMATION CONTACT: Brian Knieser, Office of Resource Conservation and Recovery, Waste Identification, Notice, and Generators Division, Mail code 5303T, Environmental Protection Agency, 1200 Pennsylvania Ave., NW., Washington, DC 20460; telephone number: (202) 566-0516; email address: knieser.brian@epa.gov, or Paul Diss, Office of Resource Conservation and Recovery, Waste and Chemical Implementation Division, Mail code 5303T, Environmental Protection Agency, 1200 Pennsylvania Ave., NW, Washington DC 20460; telephone number (202) 566-0321; email address: diss.paul@epa.gov.

SUPPLEMENTARY INFORMATION:

The following outline is provided to aid in locating information in this preamble.

Table of Contents

I. General Information

A. List of abbreviations and acronyms used in this proposed rule

Btu British thermal unit

CAA Clean Air Act

CFR Code of Federal Regulations

CISWI Commercial and Industrial Solid Waste Incinerator

EPA U.S. Environmental Protection Agency

FR *Federal Register*

HAP Hazardous air pollutants

NAICS North American Industrial Classification System

NESHAP National emission standards for hazardous air pollutants

NHSM Non-hazardous secondary material

OMB Office of Management and Budget

RCRA Resource Conservation and Recovery Act

RIN Regulatory information number

SBA Small Business Administration

TDF Tire-Derived Fuel

U.S.C. United States Code

B. What is the statutory authority for this proposed rule?

The EPA is proposing revisions to the NHSM regulations found at 40 CFR part 241 under the authority of sections 2002(a)(1) and 1004(27) of the Resource Conservation and Recovery Act (RCRA), as amended, 42 U.S.C. 6912(a)(1) and 6903(27). Section 2002(a)(1) of RCRA authorizes the EPA to promulgate regulations as are necessary to carry out its functions under the Act. The statutory definition of "solid waste" is stated in RCRA section 1004(27).

Section 129(a)(1)(D) of the Clean Air Act (CAA) directs the EPA to establish standards for Commercial and Industrial Solid Waste Incinerators (CISWIs). Section 129(g)(6) of the CAA provides that the term "solid waste" shall have the meanings established by the Administrator pursuant to RCRA (42 U.S.C. 7429(g)(6)). Further, unless directed otherwise by statute, the Agency is generally free to reconsider policy positions and to revise or rescind prior actions provided that it acknowledges the change in position, provides a reasonable explanation for the new position, and considers reasonable reliance interests on the prior position.[1]

C. Does this proposed rule apply to me?

Categories and entities potentially affected by this action, either directly or indirectly, include, but may not be limited to, the cement manufacturing industry (North American Industrial Classification System (NAICS) code 32731). In addition, waste management and

[1] See e.g., *FDA v. Wages & White Lion Invs., LLC*, 145 S. Ct. 898 (2025); *FCC v. Fox TV Stations, Inc.*, 556 U.S. 502 (2009); *Clean Air Council v. Pruitt*, 862 F.3d 1, 8 (D.C. Cir. 2017) ("Agencies obviously have broad discretion to reconsider a regulation at any time.").

remediation services (NAICS 562) may also be affected. Other types of entities not listed could also be affected. To determine whether your facility, company, business, organization, etc., is affected by this action, you should examine the applicability criteria in this rule. If you have any questions regarding the applicability of this action to a particular entity, consult the people listed in the **FOR FURTHER INFORMATION CONTACT** section.

II. Background

A. *Background on Scrap Tires*

Scrap tires are tires that have reached the end of their useful life and are no longer suitable for their original intended purpose. The U.S. Tire Manufacturers Association estimates there were 264 million end-of-life tires generated in 2023. Of these tires, 207 million (79%) were recycled or used as fuel. Tire fuel markets include 43 million tires going to cement manufacturing, 31 million to pulp and paper mills, and 11 million to electric utilities.

Not all scrap tires have been managed appropriately. At the peak of the tire pile issue in the 1990s, the US Tire Manufacturers Association (USTMA) estimated there were a billion abandoned scrap tires in piles across the United States. Thanks to concerted and sustained efforts by states, EPA Regions, and industry, USTMA estimates that number has been reduced to about 48 million as of 2023. This represents a steep reduction of about 95 percent since the 1990s.[2]

Abandoned scrap tires are discarded material. They have been placed in open dumps in numerous locations across the country and the resulting piles contribute to the national solid waste management problem due to the threat of fires and because they provide an ideal breeding ground for mosquitoes and rodents.[3] Despite substantial reduction in recent years, the remaining abandoned scrap tires continue to present risks to human health and the environment.

Scrap tire piles present a substantial fire risk which can cause adverse impacts on human health and the environment. There are many documented incidents where scrap tire piles have

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[2] U.S. Tire Manufacturers Association 2023 End-of-Life Tire Management Report: https://www.ustires.org/system/files/2024-10/USTMA%27s%202023%20End-of-Life%20Tire%20Management%20Report.pdf.

[3] 75 FR 31875, June 4, 2010.

caught fire. Once alight, such fires are difficult to extinguish. Tires are highly combustible and capable of sustained combustion because of their chemical composition and hollow structure that facilitates airflow. Abandoned tire piles are often located in areas that are hard for first responders to access and can require specialized equipment to fully extinguish, leading to long initial response times.[4] Additionally, as tires burn, they produce thick, oily residue that can re-ignite even after initial suppression. This means tire fires can smolder underground or beneath debris for weeks or even months, requiring significant effort, specialized foam, and large volumes of water to fully extinguish.[5] Fumes from burning tires can harm nearby residents and emergency responders in a variety of short- and long-term ways, ranging from irritation of the skin, eyes, and mucous membranes; central nervous system effects; depression; respiratory effects; and cancer.[6]

They also increase disease risk to nearby communities. Rainwater collects inside abandoned tires and provides a breeding ground for mosquitoes, which can transmit illnesses like West Nile virus, which causes West Nile fever, and Eastern Equine Encephalitis virus, which causes encephalitis.[7,8] Abandoned tires also provide an ideal habitat for other pests like rodents which can carry numerous bacterial and viral diseases like leptospirosis and hantavirus.[9]

This proposed rule will address the threats to human health and the environment described above. The EPA intends this rule to facilitate recovery of abandoned scrap tires; reducing the number of abandoned tires through resource recovery is an important strategy to reduce the health and environmental risks they pose.

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[4] US EPA. *Illegal Dumping Prevention Guide*. June 2025. EPA Publication 905B25001: https://www.epa.gov/system/files/documents/2025-08/epa_r5_illegal-dumping-prevention-guide_508.pdf.
[5]ehttps://www.actenviro.com/tire-fire/.
[6] EPA 1997. *Air Emissions from Scrap Tire Combustion,* EPA-600/R-97-115, October 1997
[7] Ohio State University Extension, "West Nile Virus," accessed September 2, 2025, https://ohioline.osu.edu/factsheet/WNV-1004.
[8] CDC, "About Eastern Equine Encephalitis," accessed February 6, 2026. https://www.cdc.gov/eastern-equine-encephalitis/about/index.html.
[9] CDC, "Controlling Wild Rodent Infestations," accessed December 21, 2025. https://www.cdc.gov/healthy-pets/rodent-control/index.html.

B. History of Scrap Tires and the NHSM Regulations[10]

The NHSM regulations establish standards and procedures for identifying whether non-hazardous secondary materials (NHSM) are solid wastes or are legitimately used as non-waste fuels or ingredients when combusted. The RCRA statute defines in relevant part a "solid waste" as "any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and *other discarded material*…resulting from industrial, commercial, mining, and agricultural operations, and from community activities..." (RCRA section 1004(27) (emphasis added), 42 U.S.C. 6903(27)).

The meaning of "solid waste," as defined under RCRA, is of particular importance as it relates to section 129 of the CAA (42 U.S.C. 7429). CAA section 129 states that the term "solid waste" shall have the meaning "established by the Administrator pursuant to the Solid Waste Disposal Act" (*Id*. at 7429(g)(6)).[11] If a material is solid waste under RCRA, a combustion unit burning the waste material is required to meet the applicable CAA section 129 emission standards for solid waste incineration units. If the material is not solid waste, the combustion unit is required to meet the applicable CAA section 112 emission standards.

The Agency first solicited comment on whether and when secondary materials should be defined as solid waste when used as fuels or ingredients in combustion units in an advanced notice of proposed rulemaking (ANPRM), which was published in the *Federal Register* on January 2, 2009 (74 FR 41). The EPA considered the responses to the ANPRM and published the proposed NHSM rule on June 4, 2010 (75 FR 31844). The EPA issued the final NHSM rule on March 21, 2011 (76 FR 15456).

i. Solid Waste Identification and Legitimacy Criteria

[10] The following information is provided for the readers' convenience and general context. Except as expressly described in this document, EPA is not reopening, and will not respond to comments on, other provisions of the NHSM regulations.

[11] The Solid Waste Disposal Act, as amended, is commonly referred to as RCRA.

In the final NHSM rule, the EPA codified standards and procedures to be used to identify whether an NHSM is solid waste when used as a fuel and/or ingredient in a combustion unit. As part of this process, EPA codified the legitimacy criteria, determined certain categories of NHSM are non-waste fuel when combusted (including scrap tires from scrap tire collection programs), and discussed processing scrap tires into tire-derived fuel (TDF). The final rule codified several definitions in 40 CFR 241.2. "Secondary material" is defined as "any material that is not the primary product of a manufacturing or commercial process, and can include post-consumer material, off-specification commercial chemical products or manufacturing chemical intermediates, post-industrial material, and scrap." "Non-hazardous secondary material" is defined as "a secondary material that, when discarded, would not be identified as a hazardous waste…" under the RCRA Subtitle C hazardous waste regulations found at 40 CFR part 261. Per 40 CFR 241.3(a), an NHSM, including post-consumer materials, is solid waste when combusted, unless it is determined to be non-waste fuel or ingredient.

The codified legitimacy criteria ensure that NHSM fuels are used to replace other energy resources and are not simply being discarded through combustion (i.e., via sham recycling). NHSM used as non-waste fuel in a combustion unit must meet the legitimacy criteria specified in 40 CFR 241.3(d)(1) to be legitimately combusted as non-waste fuel. To meet the legitimacy criteria for non-waste fuel, the NHSM must: (1) be managed as a valuable commodity, (2) have a meaningful heating value and be used as a fuel in a combustion unit that recovers energy; and (3) contain contaminants or groups of contaminants at concentration levels comparable to (or lower than) those in traditional fuels which the combustion unit is designed to burn.

ii. Categorical Non-Waste Determinations

In the final NHSM rule, the EPA determined that several categories of NHSM are non-waste fuel when combusted. The EPA evaluated the characteristics, impacts, and potential uses of several common secondary materials used as fuel in combustion units in making those determinations. These categorical non-waste determinations are listed at 40 CFR 241.4(a)(1)-

(10). EPA made the categorical determination that scrap tires managed in an established tire collection program and burned for energy recovery are non-waste fuel. They were deemed to meet the legitimacy criteria for use as fuel discussed above. First, EPA determined that tire collection programs manage the scrap tires they collect as a valuable commodity. This criterion ensures that the NHSM is managed in a manner consistent with an analogous fuel or is otherwise adequately contained to prevent releases to the environment. Management as a valuable commodity is both an indication that no discard is occurring and accords with statutory safeguards by preventing disposal. Second, EPA found that scrap tires meet the requirement for meaningful heating value, in that scrap tires have a higher heating value (12,000-16,000 Btu/lb) than the replacement fuel, coal (11,000-13,000 Btu/lb).[12] Third, EPA concluded that scrap tires have comparable (or lower) levels of contaminants as compared to the traditional fuel it is replacing.[13] See 76 FR 15456-15491.

For the purposes of defining solid waste whose combustion is subject to CAA section 129 standards, categorical non-waste determinations apply at the point of combustion when an NHSM is burned as fuel or ingredient. EPA's categorical non-waste determinations recognize that combustion of specific NHSMs for energy recovery is use akin to combustion of traditional fuel product, as opposed to the incineration of solid waste as a means of disposal. In summary, the Agency considered i) whether the NHSM had been discarded in the first instance, ii) the legitimacy criteria for the respective fuel and, iii) if the material had been discarded, whether it had been sufficiently processed such that EPA could determine that the combustion of the legitimate non-waste NHSM fuel was not a form of discard or disposal. If EPA determines that an NHSM is a legitimate non-waste fuel, then facilities that combust this material do not fall

[12] EPA 2008 *Materials Characterization Paper - Scrap Tires*, December 17, 2008, EPA-HQ-RCRA-2008-0329-0239. https://www.regulations.gov/document/EPA-HQ-RCRA-2008-0329-0239.
[13] Global Efficiency Intelligence. June 2023 *Emissions impacts of alternative fuels combustion in the cement industry*. https://www.globalefficiencyintel.com/emissions-impacts-of-alternative-fuels-combustion-in-the-cement-industry.

under the CAA Section 129 requirements and that CAA Section 112 permit holders must perform appropriate compliance obligations.

iii. Processing NHSM into Fuel

The 2011 NHSM final rule also discussed the processing of NHSM into legitimate fuel. Most types of discarded NHSM cannot function, from a practical perspective, as legitimate fuel as-is and must first be processed in order to recover a legitimate non-waste fuel. Processing as defined in 40 CFR 241.2 includes, but is not limited to, operations necessary to remove or destroy contaminants, significantly improve the fuel characteristics of the material, e.g., sizing or drying the material in combination with other operations, chemically improve the as-fired energy content, or improve the ingredient characteristics. Minimal operations that result only in modifying the size of the material by shredding do not constitute processing for purposes of this definition.

In making a determination that an NHSM is a categorical non-waste fuel to be identified in 40 CFR 241.4, the Agency can take into consideration relevant factors specific to the particular NHSM regarding the degree of processing needed to render a discarded material into a non-waste fuel. In particular, heterogeneous wastes such as construction and demolition (C&D) debris require a great deal of processing to ensure that legitimate non-waste fuel (clean wood) has been fully recovered from the discarded material. See 40 CFR 241.4(a)(5) for a description of best management practices that C&D waste processors must follow to recover non-waste C&D wood. For coal refuse recovered from legacy piles a type of NHSM, the same manner of processing that is needed for currently generated coal refuse is enough for the recovered NHSM to be considered non-waste fuel. See 40 CFR 241.4(a)(3).

In another example, the categorical non-waste designation for resinated wood used as fuel in a combustion unit, found at 40 CFR 241.4(a)(2), has no explicit processing requirement or any other limiting provisions in the regulations because it is not discarded. The EPA acknowledged that resinated wood may be processed before being combusted as non-waste fuel

(e.g., by chipping or hogging) but also stated that such processing is not necessary for the resinated wood to be considered non-waste fuel. (76 FR 15500.) The non-waste determination was thus made in part due to the EPA's finding that the management of the resinated wood under the conditions described does not constitute discard, noting that "resinated wood residuals are routinely transferred between either intra- or inter- company facilities and used as either ''furnish'' (i.e., raw materials) or fuel at the receiving facilities. The material being transferred off-site is used and handled in the same manner that resinated wood residuals are used when generated onsite (such that it is impossible to distinguish between materials that are being used as a raw material and those that are being used as a fuel.)" (76 FR 15472.).

iv. Scrap Tires from Tire Collection Programs versus Abandoned Scrap Tires

Similarly, the EPA made a finding that scrap tires that are managed under the oversight of established tire collection programs are not discarded and can be combusted as non-waste fuel without processing (see 40 CFR 261.4(a)(1)). The 2011 final NHSM rule explicitly states that cement kilns may combust whole tires as non-waste fuel without processing as long as these tires are sourced from established tire collection programs. "In particular, cement kilns operate at much higher temperatures and need, not only the fuel from the tires, but also the noncombustible portions in order to produce cement clinker, creating a strong market for this type of beneficial use. Whole tires removed from vehicles under established tire collection programs still meet the legitimacy criteria when replacing traditional fuel sources (e.g., coal) in cement kilns due to the contaminant levels and combustion properties." (76 FR 15535.) In contrast, where tires are discarded in the first instance (e.g., abandoned scrap tires), sufficient processing is needed before they are considered non-waste fuel. In response to public comment, the EPA said that it "sympathizes with the commenters' concern that the processing requirement could have the effect of applying different standards to identical materials, such as scrap tires." The EPA went on to explain that "[o]nce the material has been discarded—thrown into waste piles or on stacks—there is no choice. Something other than mere recycling must happen to the material

before it may lose its waste designation." (76 FR 15476.) The preamble to the 2011 final rule stated that TDF that has been chipped/shredded, sorted, and dewired (or at least 90% wire free) would be considered sufficiently processed, but other standards may apply to specific units.[14] Subsequent EPA guidance noted that cement kilns can manage TDF with less metal removal because kilns utilize metal contained in scrap tires as a component in their manufacturing process. Under current EPA guidance, metal removal as low as 2-10 percent may be considered a sufficient alternative processing goal when discarded scrap tires are burned in a cement kiln.[15]

In summary, under the existing regulations, tires that are abandoned or have otherwise been discarded cannot be combusted as non-waste fuel without first being sufficiently processed per the definition of "processing" in 40 CFR 241.2. In contrast, tires that are managed in an established tire collection program are not considered discarded and can be managed as non-waste fuel when combusted whole or simply shredded without metal removal before combustion per the categorical non-waste determination in 40 CFR 241.4(a)(1).

v. 2013 Amendment to the NHSM Rules

On February 7, 2013, the EPA amended the NHSM rules to "clarify several provisions in order to implement the non-hazardous secondary materials rule as the agency originally intended." (78 FR 9112.) Among other changes, the EPA issued a revised definition of "established tire collection program" in order to account for "off-specification" (including factory scrap) tires that are contractually arranged to be collected, managed, and transported between a tire manufacturer (including retailers or other parties involved in the distribution and sale of new tires) and a combustor, which is analogous to how scrap tires removed from vehicles are managed. The EPA also revised the definition to specifically include tires that were not abandoned and were received from the general public at tire collection program events.

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[14] 76 FR 15456, March 21, 2011 (page 15498).

[15] EPA 2020. *Fact Sheet on Non-Hazardous Secondary Materials Determinations and Scrap Tires*. EPA 530-F-20-008, December 2020. https://www.epa.gov/sites/default/files/2020-12/documents/scrap_tire_fact_sheet_dec_2020_v2.pdf

Following the promulgation of the NHSM rules and their non-waste determinations, the regulations were upheld by the D.C. Circuit in *Solvay USA Inc. v. EPA*, 608 F. App'x 10 (D.C. Cir. 2015).

Note that the EPA is summarizing this background information for the reader's convenience and is not reopening or asking for comment on the original non-waste determination for scrap tires.

III. Proposed Changes to the NHSM Rules Regarding Recovered Scrap Tires

A. Proposed Categorical Non-Waste Determination for Recovered Scrap Tires Combusted in Cement Kilns

i. Recovered Scrap Tires as Non-Waste Fuel

The EPA is proposing that scrap tires, including abandoned scrap tires that are recovered, are a categorical non-waste fuel when managed as a valuable commodity and combusted as fuel in cement kilns. Abandoned scrap tires that are recovered are largely physically and chemically identical to whole scrap tires collected by established tire collection programs. The categorical non-waste determination in 40 CFR 241.4(a)(1) applies only to collected scrap tires and excludes abandoned tires based on their origin instead of physical or chemical properties of the material. Both types of scrap tires have equivalent thermal values and contain iron wire that has utility in cement kilns. This proposed determination would have the effect of regulating recovered and collected scrap tires identically when they are managed as a valuable commodity and destined for use as fuel in cement manufacturing. It would also allow recovered scrap tires to be managed as non-waste fuel outside of established tire collection programs (as amended in today's proposal) when used as fuel in cement kilns. Given that "it is 'eminently reasonable to treat materials that are indistinguishable' from virgin materials as non-waste fuel," the EPA's proposed determination on abandoned tires will reasonably allow otherwise indistinguishable scrap tires to be regulated the same way when combusted as fuel in cement kilns. See *Solvay*

USA Inc. v. EPA, 608 F. App'x 10, 13 (D.C. Cir. 2015) (quoting *Safe Food & Fertilizer v. EPA*, 350 F.3d 1263, 1269 (D.C. Cir. 2003)).

This proposed categorical non-waste determination at 40 CFR 241.4(a)(11) would apply to previously abandoned scrap tires only when they are recovered and managed as a valuable commodity from the point of recovery onward to the cement kiln, thus ensuring that the first legitimacy criterion is met. Recovered scrap tires have a meaningful heating value that is comparable to virgin coal in cement kilns[16] and contain contaminants at levels comparable in concentration to or lower than those in traditional fuels like coal, satisfying the second and third legitimacy criteria discussed in the Background section. Replacing traditional fuels with scrap tires may also offer benefits such as reduced emissions for select contaminants like nitrogen oxides, sulfur dioxide, and particulate matter.[17,18] Furthermore, this rule will conserve virgin materials such as coal and iron by partially supplementing their use as fuel and ingredients in clinker manufacturing. In turn, this will potentially reduce the upstream environmental and economic costs of extracting these resources and transporting them to cement kilns. In summary, the EPA is proposing that recovered scrap tires categorically satisfy the legitimacy criteria for NHSM non-waste fuel because of their physical and chemical characteristics, comparability to coal as the analogous fuel, and supply chain practices that ensure scrap tires will be managed as a valuable commodity.

For the reasons outlined above, the EPA is exercising its regulatory authority to define solid waste to reasonably accomplish the objectives of the statute described in RCRA section 1002. This includes a national policy to promote the protection of health and the environment and to conserve land, valuable material, and energy resources. Reducing the volume of

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[16] U.S. Energy Information Administration. Manufacturing Energy Consumption Survey (MECS). Accessed March 10, 2026. https://www.eia.gov/consumption/manufacturing/data/2018/.

[17] EPA. (2008). *Materials Characterization Paper - Scrap Tires*, December 17, 2008, EPA-HQ-RCRA-2008-0329-0239. https://www.regulations.gov/document/EPA-HQ-RCRA-2008-0329-0239

[18] Global Efficiency Intelligence. June 2023 *Emissions impacts of alternative fuels combustion in the cement industry*. https://www.globalefficiencyintel.com/emissions-impacts-of-alternative-fuels-combustion-in-the-cement-industry.

abandoned tires will have other substantial benefits through reducing human health risks posed by fire, smoke, and disease, especially in rural, Tribal, and economically disadvantaged areas.[19] The tire pile clean-up process will also require the action of the tire recycling community, operators along the supply chain, the cement kiln industry, and the states. The EPA is proposing this categorical non-waste determination in an effort to facilitate actions by these stakeholders to address the tire pile problem.

ii. Revising the Amount of Processing Required for Scrap Tires to be Considered Non-Waste Fuel when Combusted

In addition to their properties as fuel, previously abandoned scrap tires, like collected scrap tires, contain small amounts of metals (primarily iron) which are useful ingredients in the cement production process.[20] Because the current regulations require a meaningful degree of wire removal for previously abandoned tires to be considered a non-waste fuel, processing into TDF results in the removal of ingredients useful to cement kilns that burn scrap tires. However, despite the advantages of using whole tires and shredded tires still containing wire as inputs into cement kilns, the 2011 NHSM final rule omitted abandoned scrap tires from the types of tires that may be combusted as non-waste fuel when collected by an established tire collection program. The result is that recovered scrap tires still require extensive processing into tire derived fuel before use as non-waste fuel. This distinction has resulted in an unnecessary and unreasonable processing requirement that exceeds the degree of processing needed to render the material useful in cement kilns. Processing whole tires into TDF requires a significant amount of time and resources to shred and de-wire.[21] Hogging or shredding tires requires specialized equipment and often involves transport to and from off-site processing facilities adding further

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[19] US EPA. *Illegal Dumping Prevention Guide*. June 2025. EPA Publication 905B25001: https://www.epa.gov/system/files/documents/2025-08/epa_r5_illegal-dumping-prevention-guide_508.pdf.
[20] European Cement Research Academy (ECRA). 2016. Technical Report A-2016/1039. *Evaluation of the energy performance of cement kilns in the context of co-processing*. https://cembureau.eu/media/oyahklgk/12042-ecra-energy-performance-cement-kilns-2017-10-15.pdf.
[21] CM Shredders. *Starting a scrap tire business 101*. CM Shredders. https://cmshredders.com/tire-recycling-business/starting-a-scrap-tire-business-101/.

time, labor, logistics costs, and environmental impacts. The current regulatory framework has disincentivized the use of recovered scrap tires as fuel in cement kilns by requiring extensive processing to be regulated as non-waste fuel.

The EPA is now proposing to change its position regarding the extent to which abandoned tires must be processed to be regulated as non-waste fuel when combusted in cement kilns or managed in an established tire collection program based on the characteristics of the tires and other relevant factors discussed above. The EPA proposes that these tires may be considered a non-waste fuel and satisfy the definition of "processing" in 40 CFR 241.2 which states, "Processing includes, but is not limited to, operations necessary to: Remove or destroy contaminants; significantly improve the fuel characteristics of the material…" Abandoned tires may satisfy the definition of processing through the recovery process which typically includes physically removing them from the location where they were abandoned, removing and/or ensuring the absence of contaminants like other solid waste that may be dumped alongside or commingled, and removing and/or ensuring the absence of large-scale contamination by soil and organic material. Such processing ensures that recovered scrap tires are equivalent to collected scrap tires when managed in an established tire collection program or combusted in cement kilns. The EPA's proposal would eliminate the need to process via shredding and dewiring, which is currently required for previously abandoned scrap tires prior to combustion as non-waste fuel. Shredding may be used to make them more amendable for use as fuel, but it would not be required to meet the definition of processing. These proposed changes would remove regulatory inconsistency for both industry and regulatory authorities charged with applying the NHSM rules at regulated facilities with respect to all scrap tires, simplify implementation of tire pile clean-ups, reduce compliance burden, and add flexibility for state programs to address their abandoned scrap tire piles. As scrap tires can be legitimately combusted whole in cement kilns, they do not require extensive processing to render their material valuable, and previously abandoned scrap

tires are largely identical to collected tires, EPA expects these changes to result in the health and economic benefits described above.

Lastly, this rule will also have upstream benefits by reducing the virgin materials required for cement manufacturing. The mining, processing, and transportation of these resources have notable environmental and economic impacts. These processes create substantial amounts of waste and release atmospheric pollutants. Energy resources like coal can also be used instead for applications like energy generation and steel manufacturing. This proposed rule will partially supplement these virgin resources with previously abandoned scrap tires advancing the resource conservation and recovery goals congress codified in RCRA.

B. Proposed Revision to the Definition of "Established Tire Collection Programs"

In addition to proposing a new categorical non-waste determination for scrap tires recovered for use as fuel in cement kilns, the EPA is proposing to revise the definition of "established tire collection program," referenced in the categorical exclusion contained in 241.4(a)(1), to include programs that recover abandoned scrap tires and ensure that the recovered tires are not discarded after their recovery. An established tire collection program is currently defined in the regulations as a comprehensive collection system or contractual arrangement that ensures scrap tires are not discarded after collection and are handled as valuable commodities through arrival at the combustion facility. Currently, such programs are allowed to manage whole scrap tires that are removed from vehicles as non-waste fuel, off-specification tires, and tires that were received from the general public at collection program events (see 40 CFR 241.2 and 40 CFR 241.4(a)(1)). The current definition excludes the management of abandoned tires, and therefore abandoned tires must instead be processed into TDF in accordance with the requirements of 40 CFR 241.3 to be considered non-waste fuel.

The EPA is proposing that abandoned scrap tires will no longer need to be shredded or dewired to meet the processing criteria to be considered non-waste fuel when managed through an established tire collection program and sent to a combustion facility. Because whole

abandoned scrap tires would no longer be solid waste when recovered, an established tire collection program would be able to manage recovered scrap tires no differently than it does the un-discarded scrap tires it collects. Whether the collection program shreds recovered tires or sends them whole as non-waste fuel to combustion facilities, the tire collection program would meet the definition in 40 CFR 241.2 and legitimacy criteria in 40 CFR 241.3(d)(1)(i) by ensuring that the recovered tires are managed as a valuable commodity and are not discarded after collection. Therefore, this proposal to amend the definition of established tire collection program to include previously abandoned scrap tires would mean that the categorical non-waste determination at 40 CFR 241.4(a)(1) would apply to previously abandoned scrap tires collected in an established tire collection program.

Thus, the proposed definition in 40 CFR 241.2 of an established tire collection program will read "a comprehensive collection system or contractual arrangement that ensures scrap tires are not discarded after collection and are handled as valuable commodities through arrival at the combustion facility. This can include scrap tires that were received from the general public at collection program events and previously abandoned scrap tires that were recovered for use as fuel."

C. Request for Comment

The EPA is not reopening or asking for comment on the original non-waste determination in 40 CFR 241.4(a)(1) for scrap tires that are not discarded and managed under the oversight of established tire collection programs. The intent of this proposal is to identify certain specific aspects of the NHSM rule related to scrap tires which EPA is reconsidering and on which it is soliciting public comment. The Agency is not reopening the entire NHSM rule for reconsideration and will not respond to comments directed toward rule provisions that are not specifically identified in this proposal. As such, the Agency is not taking comment on the underlying NHSM regulations, such as the legitimacy criteria at 40 CFR 241.3(d)(1)(i). The Agency is also not taking comment on the pre-existing designation of scrap tires as a legitimate

non-waste fuel as this action only includes the additions to 40 CFR 241.2 and 241.4(a)(11). The Agency is only taking comment on the addition of recovered scrap tires sent to cement kilns as NHSM and the expansion of the definition of established tire collection program to include recovered tires as discussed in this document.

As discussed in the Regulatory Impact Analysis (RIA) for this proposal, there are several sources of uncertainty in the analysis of costs and benefits. As such, EPA is soliciting comment on a number of topics that could impact the estimated cost savings of the rule, if finalized. Of particular interest is information regarding tire processing frequency and costs, as well as projected market effects of the rule. See Chapter F of the RIA for the complete list of topics on which the EPA is requesting comment.

IV. Effects of This Proposed Rule on Other Programs

Beyond adding scrap tires combusted in cement kilns to the list of non-waste fuels and revising the definition of established tire collection program, this proposal does not change the effect of the NHSM regulations on other programs as described in the March 21, 2011 NHSM final rule, as amended on February 7, 2013 (78 FR 9138), February 8, 2016 (81 FR 6688), and October 18, 2023 (88 FR 71761). Refer to section VIII of the preamble of the March 21, 2011, NHSM final rule[22] for the discussion on the effect of the NHSM rule on other programs**.**

V. State Authority

A. Relationship to State Programs

This proposed change to add scrap tires combusted in cement kilns to the list of non-waste fuel and to revise the definition of established tire collection program does not change the relationship to state programs as described in the March 21, 2011, NHSM final rule. Refer to section IX of the preamble to the March 21, 2011, NHSM final rule[23] for the discussion on state authority including, "Applicability of State Solid Waste Definitions and Beneficial Use

[22] 76 FR 15456, March 21, 2011 (page 15545).
[23] 76 FR 15456, March 21, 2011 (page 15546).

Determinations" and "Clarifications on the Relationship to State Programs." The Agency, however, would like to reiterate that this proposed rule (like the March 21, 2011, and the February 7, 2013, final rules) is not intended to interfere with a state's program authority over the general management of solid waste.

B. State Adoption of the Rulemaking

No federal approval procedures are included in this proposed rule. As a jurisdictional rule, this regulatory change will become effective nationally without state adoption if finalized. Some states incorporate federal regulations by reference or have specific state statutory requirements that their state program can be no more stringent than the federal regulations. In those cases, the EPA anticipates that, if finalized and if required by state law, this rule's proposed changes will be incorporated (or possibly adopted by authorized state air programs) consistent with the state's laws and administrative procedures.

VII. Costs and Benefits

This action is definitional in nature, and any costs or benefits accrue to the corresponding Clean Air Act rules. In accordance with the Office of Management and Budget (OMB) Circular A-4 requirement that the EPA analyze the costs and benefits of regulations, the EPA prepared a RIA document for this proposal that examined the scope of indirect impacts for both costs and benefits.

The proposed changes are expected to result in an annual cost savings of $11.6 to $19.2 million from reduced fuel costs, reduction in tire processing required for tires used as fuel in cement kilns, and reduced disposal costs for tires that have been abandoned. Beyond cost savings, the proposed rule offers environmental and public health benefits by reducing air pollutants and supporting a circular economy. It also facilitates the cleanup of abandoned tire piles, enhancing public health and safety.

VIII. Statutory and Executive Order Reviews

Additional information about these statutes and Executive Orders can be found at https://www.epa.gov/laws-regulations/laws-and-executive-orders.

A. Executive Order 12866: Regulatory Planning and Review and Executive Order 13563: Improving Regulation and Regulatory Review

This action is not a significant regulatory action and was therefore not submitted to the Office of Management and Budget (OMB) for review.

B. Executive Order 14192: Unleashing Prosperity Through Deregulation

This action is expected to be an Executive Order 14192 deregulatory action. Details on the estimated cost savings of this proposed rule can be found in the EPA's analysis of the potential costs and benefits associated with this action.

C. Paperwork Reduction Act (PRA)

This action does not impose any new information collection burden under the PRA as this action only defines scrap tires combusted in cement kilns as a non-waste fuel for the purposes of the NHSM regulations. OMB has previously approved the information collection activities contained in the existing regulations and has assigned OMB control number 2050-0205.

D. Regulatory Flexibility Act (RFA)

I certify that this action will not have a significant economic impact on a substantial number of small entities under the RFA. In making this determination, the EPA concludes that the impact of concern for this rule is any significant adverse economic impact on small entities and that the agency is certifying that this rule will not have a significant economic impact on a substantial number of small entities because the rule relieves regulatory burden on the small entities subject to the rule. This action will reduce regulatory uncertainty associated with these materials and help increase management efficiency. We have therefore concluded that this action will relieve regulatory burden for all directly regulated small entities.

E. Unfunded Mandates Reform Act (UMRA)

This action does not contain an unfunded mandate as described in UMRA, 2 U.S.C. 1531–1538, and does not significantly or uniquely affect small governments. The action imposes no enforceable duty on any state, local or tribal governments or the private sector. It is expected to result in cost-savings and affected entities are not required to manage the final additional NHSMs as non-waste fuels. While this action may impact Clean Air Act permits and compliance obligations, it is expected to result in a reduced regulatory burden.

F. Executive Order 13132: Federalism

This action does not have federalism implications. It will not have substantial direct effects on the states, on the relationship between the national government and the states, or on the distribution of power and responsibilities among the various levels of government.

G. Executive Order 13175: Consultation and Coordination with Indian Tribal Governments

This action does not have Tribal implications as specified in Executive Order 13175. While this proposed rule may benefit Tribes by facilitating the clean-up of tires that have been abandoned on Tribal lands, it will neither impose substantial direct compliance costs on Tribal governments, nor preempt Tribal law. Thus, Executive Order 13175 does not apply to this action.

H. Executive Order 13045: Protection of Children from Environmental Health Risks and Safety Risks

Executive Order 13045 directs federal agencies to include an evaluation of the health and safety effects of the planned regulation on children in federal health and safety standards and explain why the regulation is preferable to potentially effective and reasonably feasible alternatives. This action is not subject to Executive Order 13045 because it is not a significant regulatory action under section 3(f)(1) of Executive Order 12866, and because the EPA does not believe the environmental health or safety risks addressed by this action present a disproportionate risk to children. To the extent that the rule facilitates cleanup of abandoned tire piles, the EPA expects any impact on children's health to be positive. However, EPA's *Policy on Children's Health* applies to this action. Information on how the Policy was applied is available

under “Children’s Environmental Health” in the Supplementary Information section of this preamble.

I. Executive Order 13211: Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use

This action is not subject to Executive Order 13211, because it is not a significant regulatory action under Executive Order 12866.

J. National Technology Transfer and Advancement Act (NTTAA)

This rulemaking does not involve technical standards.

List of Subjects in 40 CFR Part 241

Environmental protection, Air pollution control, Non-hazardous secondary materials, Waste treatment and disposal.

Lee Zeldin,
Administrator.

For the reasons stated in the preamble, EPA proposes to amend title 40, chapter I, of the Code of Federal Regulations as follows:

PART 241—SOLID WASTES USED AS FUELS OR INGREDIENTS IN COMBUSTION UNITS

1. The authority citation for part 241 continues to read as follows:

Authority: 42 U.S.C. 6903, 6912, 7429.

Subpart A-General

2. In § 241.2, revise the definition "established tire collection program" to read as follows:

§ 241.2 Definitions.

* * * * *

Established tire collection program means a comprehensive collection system or contractual arrangement that ensures scrap tires are handled as valuable commodities through arrival at the combustion facility. This can include scrap tires that were received from the general public at collection program events and previously abandoned scrap tires that were recovered for use as fuel.

* * * * *

Subpart B-Identification of Non-Hazardous Secondary Materials That Are Solid Wastes When Used as Fuels or Ingredients in Combustion Units

3. In § 241.4, add paragraph (a)(11) to read as follows:

§ 241.4 Non-Waste Determinations for Specific Non-Hazardous Secondary Materials When Used as a Fuel.

(a) * * *

(11) Previously abandoned scrap tires managed as valuable commodities from the point of recovery through use as a fuel in cement kilns (with or without shredding).

* * * * *

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