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DEPARTMENT OF TRANSPORTATION

Pipeline and Hazardous Materials Safety Administration

49 CFR Part 173

[Docket No. PHMSA-2025-0091 (HM-268C)]

RIN 2137-AG05

Hazardous Materials: Reducing Burdens on Domestic Companies Using Battery-Powered Equipment in Trades

AGENCY: Pipeline and Hazardous Materials Safety Administration (PHMSA), Department of Transportation (DOT).

ACTION: Final rule.

SUMMARY: This final rule modernizes the Materials of Trade (MOT) exception in the Hazardous Materials Regulations (HMR) by increasing the maximum allowable quantities of lithium batteries that can be transported as MOTs. This increase removes an undue regulatory burden which constrains the ability of construction, landscaping, mowing, tree service, food service, and entertainment companies to perform their trade.

DATES: This final rule is effective [**INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER**].

FOR FURTHER INFORMATION CONTACT: Arthur Pollack, Standards and Rulemaking Division, Pipeline and Hazardous Materials Safety Administration (PHMSA), 1200 New Jersey Avenue S.E., Washington, D.C. 20590-0001, 202-366-8553, arthur.pollack@dot.gov.

I. PHMSA Action

A. What action is PHMSA taking in this Final Rule?

This final rule removes undue regulatory burdens by increasing the maximum allowable quantities of lithium batteries that can be transported as MOTs. This allowance applies to domestic companies in sectors such as construction, landscaping, mowing, tree service, food service, and entertainment—enabling them to carry the power sources required to perform their trade safely and more efficiently.

B. *Does this action apply to me?*

Effective 30 days after publication of this final rule, lithium batteries transported under conditions meeting the definition of an MOT under 49 CFR 171.8 may take advantage of the increased quantity limits outlined in 49 CFR 173.6.

C. *Why is PHMSA taking this action?*

PHMSA is taking this action in response to commenter feedback and to modernize 49 CFR 173.6 to update the quantity limits for lithium batteries under MOTs. The HMR currently limits the aggregate gross weight of materials of trade—other than certain diluted mixtures of Class 9 materials—in a motor vehicle to 200kg (440 pounds). This revision increases this allowance for lithium batteries by authorizing up to 30 kg (66 pounds) per battery, a 500 kg (1102 pounds) gross vehicle limit, and no limit for batteries installed in equipment, while including safety provisions to prevent short circuits, shifting damage, and accidental activation. This action will reduce regulatory burdens for companies that transport batteries and battery-powered equipment in support of a trade without any compromise in safety because of the safety provisions included in the revision. Finally, this action advances the goals of multiple Executive Orders and provides annualized cost savings to American businesses—please see a more detailed discussion in the Executive Order (E.O.) 12866 discussion in "Section III. Regulatory Analysis and Notices."

II. Summary of Comments Received in Response to the Notice of Proposed Rulemaking

PHMSA published a notice of proposed rulemaking (NPRM), cited as *HM-268C*, to gather feedback on modernizing the HMR to authorize increased quantities of lithium batteries under the MOTs exception.[1] Please refer to the NPRM for background and discussion of the proposed change.

The following table alphabetically lists commenters to the NPRM:

Table 1: List of NPRM Commenters

Commenter Name	Docket No.
American Pyrotechnics Association (APA)	PHMSA-2025-0091-0004
Battery Council International (BCI)	PHMSA-2025-0091-0016
Commercial Vehicle Safety Alliance (CVSA)	PHMSA-2025-0014
Council on the Safe Transportation of Hazardous Articles, Inc. (COSTHA)	PHMSA-2026-0091-0011
Dangerous Good Advisory Council (DGAC)	PHMSA-2025-0091-0013
Infotrac Inc.	PHMSA-2025-0091-0003
Medical Device Transport Council (MDTC)	PHMSA-2025-0091-0010
Outdoor Power Equipment Institute (OPEI)	PHMSA-2025-0091-0009
Pyro Shows, Inc	PHMSA-2025-0091-0005
Pyro Spectaculars, Inc.	PHMSA-2025-0091-0007
Rechargeable Battery Association (PRBA)	PHMSA-2025-0091-0008
Utility Solid Waste Activities Group (USWAG)	PHMSA-2025-0091-0015
William Forbes	PHMSA-2025-0091-0012

A majority of respondents supported the proposal to amend the MOT exception to authorize the transportation of increased quantities of lithium batteries. Support for the rulemaking came from a diverse coalition of stakeholders, including battery and equipment manufacturers, pyrotechnics and entertainment associations, utility groups, and transportation safety councils. Organizations, including PRBA, OPEI, and BCI, argued that the current MOT quantity limits are outdated and overly restrictive, creating logistical and financial burdens that limit growth in their industries.

Specific trade sectors also highlighted unique operational needs. For instance, APA, Pyro Shows, Inc., and Pyro Spectaculars, Inc. stated that the rulemaking would facilitate the efficient transport of drones used to supplement professional fireworks displays. Similarly, USWAG and the MDTC noted that the increased limits are essential

[1] 90 FR 28578 (Jul. 1, 2025).

for the transport of equipment used in electrical grid maintenance and life-saving medical care, respectively. Infotrac Inc. and OPEI emphasized the practical relief this rulemaking would provide to landscaping and maintenance professionals who currently face difficulties transporting heavy equipment, such as robotic mowers and yard tractors, under fully regulated hazardous materials frameworks. Furthermore, safety organizations, such as COSTHA and DGAC, supported the proposal on the grounds that it provides necessary economic relief and operational efficiency while preserving essential safety frameworks, such as testing and labeling requirements.

A few commenters had additional questions or concerns regarding this action. First, several respondents asked to extend the MOTs lithium battery allowance to sodium ion batteries. PHMSA did not include that proposal in the NPRM and is not prepared to address this issue in the final rule. PHMSA will consider adding sodium ion batteries to the MOT provision in a future rulemaking. In addition, commenters asked PHMSA to increase the 30 kg (66 pound) limit for lithium batteries to accommodate portable power stations—*e.g.*, rechargeable devices providing household AC power, often marketed as battery packs or "generators." PHMSA appreciates these comments, but the agency did not include this proposal in the NPRM and lacks sufficient data to support increasing the authorized weight limit in this proceeding. PHMSA may consider this request in a future rulemaking.

Second, various stakeholders recommended that PHMSA authorize prototype and low-production-run batteries as MOT. These stakeholders noted that the NPRM would require all batteries to meet the testing criteria in Section 38.3 of the UN Manual of Tests and Criteria, and that this requirement would prevent untested prototypes—which are typically exempt from standard testing requirements—from being transported as MOT. PHMSA notes that prototype batteries are generally transported for testing, development, or certification. These commercial shipments are outside the scope of the MOT exception, which only applies to activities that are “in direct support of a principal business.” Furthermore, prototype batteries do not have an established safety record and generally pose a heightened risk of fire or thermal runaway during transport. Applying the strict safety requirements of the UN Manual of Tests and Criteria is necessary to mitigate the elevated risk to public safety that accompanies these shipments.

Third, PRBA and BCI requested a revision to 49 CFR 173.6 to clarify that outer packaging is not required for lithium batteries that are adequately secured against shifting. This allowance currently exists for other receptacles and articles under the MOT provisions. PHMSA agrees that this revision promotes regulatory consistency and efficiency and is amending 49 CFR 173.6 to authorize explicitly the transport of lithium batteries without outer packaging if they are properly secured to prevent movement during transport.

Finally, CVSA and Mr. William Forbes submitted comments opposing the proposed revisions to the MOT provisions. CVSA maintains that the current 440-pound weight allowance is sufficient and that increasing the quantity of lithium batteries directly correlates to the severity of potential incidents. CVSA cites recent crashes and fires involving lithium batteries that have resulted in significant highway and port closures. CVSA also points to the petitioner’s own admission—that small businesses often lack the expertise to handle these materials outside of MOT—to argue that granting regulatory relief to inexperienced operators is inherently unsafe. Sharing similar concerns, Mr. Forbes characterizes the proposed weight increase as “astronomical” and argues that it poses an “inherent risk” without sufficient safety data. Mr. Forbes contends that the rulemaking would place an undue burden on first responders charged with managing these incidents.

PHMSA acknowledges these concerns but disagrees that the current 440-pound allowance is sufficient to meet industry needs or that the proposed changes pose an unacceptable safety risk. The weight increase in this final rule is a modest and incremental adjustment—not an "astronomical" expansion—that balances the operational needs of small businesses with robust safety standards. PHMSA is also retaining all mandatory performance-based packaging and hazard communication requirements currently applicable to lithium batteries. Compliance with these requirements ensures that the increased weight allowance will not present an unacceptable risk to public safety. Consequently, PHMSA concludes that the final rule will not place an undue burden on first responders and that the economic benefits of facilitating commerce for small businesses—including the estimated annualized cost savings of $14.4 million (2024 dollars) outlined in the final Regulatory Impact Analysis (RIA) that is available for review in the rulemaking docket—outweigh any marginal increase in risk.

For these reasons, PHMSA is publishing this final rule to modernize 49 CFR 173.6 to update the quantity limits for lithium batteries under MOT. PHMSA finds these revisions will not have any adverse impact on safety.

III. Regulatory Analysis and Notices

A. Legal Authority

This final rule is published under the authority of the Secretary of Transportation as set forth in the Federal Hazardous Materials Transportation Laws (49 U.S.C. § 5101 *et seq*.) and delegated to the PHMSA Administrator pursuant to 49 CFR 1.97.

B. Executive Order 12866; Regulatory Planning and Review

E.O. 12866 (*Regulatory Planning and Review*), as implemented by 49 CFR part 5, subpart B, requires agencies to regulate in the "most cost-effective manner," to make a "reasoned determination that the benefits of the intended regulation justify its costs," and to develop regulations that "impose the least burden on society."[2] In arriving at those

[2] 58 FR 51735 (Oct. 4, 1993); 91 FR 22431 (Apr. 27, 2026); DOT Order 2100.7 (*Ensuring Reliance Upon Sound Economic Analysis in Department of Transportation Policies, Programs, and Activities*); *see also* DOT Order 2100.6B (*Policies and Procedures for Rulemakings*).

conclusions, E.O. 12866 requires that agencies should consider "both quantifiable measures . . . and qualitative measures of costs and benefits that are difficult to quantify" and "maximize net benefits . . . unless a statute requires another regulatory approach." E. O. 12866 also requires that "agencies should assess all costs and benefits of available regulatory alternatives, including the alternative of not regulating." Pursuant to 49 CFR part 5, subpart B, PHMSA and other Operating Administrations must generally choose the "least costly regulatory alternative that achieves the relevant objectives" unless required by law or compelling safety need. In addition, 49 CFR part 5, subpart B specifies that regulations should generally "not be issued unless their benefits are expected to exceed their costs."

E.O. 12866 and 49 CFR part 5, subpart B also require that PHMSA submit "significant regulatory actions" to the Office of Information and Regulatory Affairs (OIRA) within the Executive Office of the President's Office of Management and Budget (OMB) for review. This final rule is not a significant regulatory action pursuant to E.O. 12866 and has not been designated as a "major rule" as defined by the Congressional Review Act (5 U.S.C. § 801 *et seq.*).

PHMSA has complied with the requirements in E.O. 12866 as implemented by 49 CFR part 5, subpart B and determined this final rule will result in cost savings by reducing regulatory burdens and regulatory uncertainty for the construction, landscaping, food service, and entertainment industries by distinguishing the weight limits for lithium batteries from other Class 9 hazardous materials. PHMSA estimated that these changes will result in annualized cost savings of $14.4 million (2024 dollars) at three percent and seven percent discount rates. The annualized cost savings under the three and seven percent discount rates are the same given that the annual cost savings are constant over the 10-year analysis period. A copy of the final RIA is available for review in the rulemaking docket.

C. Executive Orders 14192 and 14219

PHMSA has determined that this final rule is an E.O. 14192 (*Unleashing Prosperity Through Deregulation*) deregulatory action.[3] PHMSA finds the total costs of the rule on the regulated community will be less than zero. This final rule does not implicate any of the factors identified in section 2(a) of E.O. 14219 (*Ensuring Lawful Governance*) indicative of a regulation that is "unlawful . . . [or] that undermine[s] the national interest."[4]

D. Energy-Related Executive Orders 13211, 14154, and 14156

PHMSA has analyzed this final rule in accordance with the principles and criteria contained in E.O. 14156 (*Declaring a National Energy Emergency*) and E.O. 14154 (*Unleashing American Energy*).[5] The President has declared a national emergency to address America's inadequate energy development production, transportation, refining, and generation capacity and asserted a Federal policy to unleash American energy by ensuring access to abundant supplies of reliable, affordable energy from (inter alia) the removal of "undue burden[s]" on the identification, development, or use of domestic energy resources. PHMSA finds this final rule to be consistent with E.O. 14156 and E.O. 14154 because it will not hinder or unduly burden the transportation or production of energy or energy-related products.

In addition, this final rule is not a "significant energy action" under E.O. 13211 (*Actions Concerning Regulations That Significantly Affect Energy Supply, Distribution, or Use*), which requires Federal agencies to prepare a Statement of Energy Effects for any "significant energy action."[6] Because this final rule is not a significant action under

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[3] 90 FR 9065 (Feb. 6, 2025).

[4] 90 FR 10583 (Feb. 25, 2025).

[5] 90 FR 8433 (Jan. 29, 2025); 90 FR 8353 (Jan. 29, 2025).

[6] 66 FR 28355 (May 22, 2001).

E.O. 12866, it will not have a significant adverse effect on supply, distribution, or energy use; accordingly, OIRA has not designated this final rule as a significant energy action.

E. *Executive Order 13132: Federalism*

PHMSA analyzed this final rule in accordance with the principles and criteria contained in E.O. 13132 (*Federalism*) and the Presidential Memorandum (*Preemption*) published in the *Federal Register* on May 22, 2009.[7] E.O. 13132 requires agencies to assure meaningful and timely input by State and local officials in the development of regulatory policies that may 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." The Federal Hazardous Materials Transportation laws contain an express preemption provision at 49 U.S.C. § 5125(b) that preempts State, local, and Tribal requirements on certain covered subjects, unless the non-Federal requirements are "substantively the same" as the Federal requirements, including the following:

(1) The designation, description, and classification of hazardous material;

(2) The packing, repacking, handling, labeling, marking, and placarding of hazardous material;

(3) The preparation, execution, and use of shipping documents related to hazardous material and requirements related to the number, contents, and placement of those documents;

(4) The written notification, recording, and reporting of the unintentional release in transportation of hazardous material; and

[7] 74 FR 24693 (May 22, 2009).

(5) The design, manufacture, fabrication, inspection, marking, maintenance, recondition, repair, or testing of a packaging or container represented, marked, certified, or sold as qualified for use in transporting hazardous material in commerce.

This final rule addresses items covered in Paragraph 1 and 2 above and will preempt State, local, and Tribal requirements not meeting the "substantively the same" standard. Though the final rule may operate to preempt some State requirements, it will not impose any regulation that has substantial direct effects on the States, the relationship between the National Government and the States, or the distribution of power and responsibilities among the various levels of government. The preemptive effect of the regulatory amendments in this final rule is limited to the minimum level necessary to achieve the objectives of the Federal Hazardous Materials Transportation laws. Therefore, the consultation and funding requirements of E.O. 13132 do not apply.

F. Regulatory Flexibility Act

The Regulatory Flexibility Act (5 U.S.C. § 601 *et seq.*) requires Federal agencies to conduct a Final Regulatory Flexibility Analysis (FRFA) for a final rule that has been subject to notice-and-comment rulemaking under the APA unless the agency head certifies that the final rule will not have a significant economic impact on a substantial number of small entities. E.O. 13272 (*Proper Consideration of Small Entities in Agency Rulemaking*) obliges agencies to establish procedures promoting compliance with the Regulatory Flexibility Act.[8] DOT posts information on a dedicated webpage to help small businesses understand and navigate Federal regulatory processes.[9] This final rule was developed in accordance with E.O. 13272 and DOT implementing guidance to ensure compliance with the Regulatory Flexibility Act. Because the final rule will reduce

[8] 67 FR 53461 (Aug. 16, 2002).

[9] DOT, *Rulemaking Requirements Related to Small Entities* (last accessed Sept 3, 2024), available at: https://www.transportation.gov/regulations/rulemaking-requirements-concerning-small-entities.

burdens, PHMSA certifies that it does not have a significant impact on a substantial number of small entities.

G. Unfunded Mandates Reform Act of 1995

The Unfunded Mandates Reform Act (UMRA, 2 U.S.C. § 1501 *et seq*.) requires agencies to assess the effects of Federal regulatory actions on State, local, and Tribal governments, and the private sector. For any proposed or final rule that includes a Federal mandate that may result in the expenditure by State, local, and Tribal governments, in the aggregate of $100 million or more (in 1996 dollars) in any given year, the agency must prepare, among other things, a written statement that qualitatively and quantitatively assesses the costs and benefits of the Federal mandate.

This final rule does not impose unfunded mandates under UMRA because it does not result in costs of $100 million or more (in 1996 dollars) per year for either State, local, or Tribal governments, or to the private sector.

H. National Environmental Policy Act

PHMSA has analyzed this rule pursuant to the National Environmental Policy Act (NEPA; 42 U.S.C. § 4321 *et seq*.) and has determined it is categorically excluded under 23 CFR 771.117(c)(20), which applies to the promulgation of rules, regulations, and directives. Under section 9 of DOT Order 5610.1D, PHMSA may apply a categorical exclusion (CE) established in another Operating Administration's procedures. PHMSA followed the requirements outlined in DOT Order 5610.1D to apply the Federal Highway Administration's CE to this deregulatory action. PHMSA has determined no unusual circumstances are present under 23 CFR 771.117(b). PHMSA's Categorical Exclusion Determination memo for this action is available on PHMSA's website.[10]

[10] PHMSA, *Implementing Procedures* (Aug. 28, 2025), available at: https://www.phmsa.dot.gov/planning-and-analytics/environmental-analysis-and-compliance/implementing-procedures.

I. Executive Order 13175

PHMSA analyzed this final rule according to the principles and criteria in E.O. 13175 (*Consultation and Coordination with Indian Tribal Governments*) and DOT Order 5301.1A *(Department of Transportation Tribal Consultation Policies and Procedures*).[11] E.O. 13175 requires agencies to assure meaningful and timely input from Tribal government representatives in the development of rules that significantly or uniquely affect Tribal communities by imposing "substantial direct compliance costs" or "substantial direct effects" on such communities or the relationship or distribution of power between the Federal Government and Tribes.

PHMSA assessed the impact of the final rule and determined that it will not significantly or uniquely affect Tribal communities or Indian Tribal governments. The rulemaking's regulatory amendments have a broad, national scope; therefore, this final rule will not significantly or uniquely affect Tribal communities, much less impose substantial compliance costs on Tribal governments or mandate Tribal action. For these reasons, PHMSA has concluded that the funding and consultation requirements of E.O. 13175 and DOT Order 5301.1A do not apply.

J. Paperwork Reduction Act

The Paperwork Reduction Act (44 U.S.C. § 3501 *et seq.*) and its implementing regulations at 5 CFR 1320.8(d) require PHMSA to provide interested members of the public and affected agencies with an opportunity to comment on information collection and recordkeeping requests. This rulemaking will not create, amend, or rescind any existing information collections.

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[11] 65 FR 67249 (Nov. 9, 2000).

K. Executive Order 13609 and International Trade Analysis

E.O. 13609 (*Promoting International Regulatory Cooperation*) requires agencies to consider whether the impacts associated with significant variations between domestic and international regulatory approaches are unnecessary or may impair the ability of American business to export and compete internationally.[12] In meeting shared challenges involving health, safety, labor, security, environmental, and other issues, international regulatory cooperation can identify approaches that are at least as protective as those that are or would be adopted in the absence of such cooperation. International regulatory cooperation can also reduce, eliminate, or prevent unnecessary differences in regulatory requirements.

Similarly, the Trade Agreements Act of 1979 (Pub. L. No. 96-39), as amended by the Uruguay Round Agreements Act (Pub. L. No. 103-465), prohibits Federal agencies from establishing any standards or engaging in related activities that create unnecessary obstacles to the foreign commerce of the United States. For purposes of these requirements, Federal agencies may participate in the establishment of international standards, so long as the standards have a legitimate domestic objective, such as providing for safety, and do not operate to exclude imports that meet this objective. The statute also requires consideration of international standards and, where appropriate, that they be the basis for U.S. standards.

PHMSA engages with international standards setting bodies to protect the safety of the American public. PHMSA has assessed the effects of this deregulatory action and has determined that its regulatory amendments will not cause unnecessary obstacles to foreign trade.

[12] 77 FR 26413 (May 4, 2012).

L. *Cybersecurity and Executive Order 14028*

E.O. 14028 (*Improving the Nation's Cybersecurity*) directed the Federal Government to improve its efforts to identify, to deter, and to respond to "persistent and increasingly sophisticated malicious cyber campaigns."[13] PHMSA has considered the effects of the final rule and has determined that its regulatory amendments will not materially affect the cybersecurity risk profile for affected entities.

M. *Privacy Act Statement*

In accordance with 5 U.S.C. § 553(c), DOT solicits comments from the public to inform its rulemaking process better. DOT posts these comments, without edit, including any personal information the commenter provides, to www.regulations.gov, as described in the system of records notice (DOT/ALL-14 FDMS), which can be reviewed at http://www.dot.gov/privacy. DOT's complete Privacy Act Statement in the Federal Register published on April 11, 2000, and may be viewed on DOT's website at http://www.dot.gov/privacy.

List of Subjects

49 CFR Part 173

Hazardous materials transportation, Packaging and containers, Radioactive materials, Reporting and recordkeeping requirements.

In consideration of the foregoing, PHMSA amends 49 CFR Chapter I as follows:

PART 173—SHIPPERS—GENERAL REQUIREMENTS FOR SHIPMENTS AND PACKAGINGS

1. The authority citation for part 173 continues to read as follows:

Authority: 49 U.S.C. 5101-5128, 44701; 49 CFR 1.81, 1.96, and 1.97.

2. Amend § 173.6 by:

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[13] 86 FR 26633 (May 17, 2021).

a. Adding paragraph (a)(7)(iii);

b. Revising paragraph (b)(3);

c. Adding paragraph (b)(6);

d. Revising paragraph (c)(4);

e. Adding paragraph (c)(5); and

f. Revising paragraph (d).

The revisions to read as follows:

§ 173.6 Materials of trade exceptions.

(a) * * *

(7) * * *

(iii) Except when the cell or battery is contained in equipment, cells and batteries described in 173.185 of this part may not exceed 30 kg (66 pounds) net weight for each cell or battery and 500 kg (1102 pounds) aggregate net weight on a motor vehicle. Cells and batteries, including when contained in or packed with equipment, must be of the type proven to meet the criteria in part III, sub-section 38.3 of the UN Manual of Tests and Criteria (IBR; see § 171.7 of this subchapter).

* * * * *

(b) * * *

(3) Outer packagings are not required for receptacles (*e.g.*, cans and bottles), articles, or batteries that are secured against shifting in cages, carts, bins, boxes, or compartments or by other means.

* * * * *

(6) Cells and batteries, including cells and batteries contained in equipment, must be packaged or secured in a manner to prevent:

(i) Short circuits;

(ii) Damage caused by shifting or placement within the package, if applicable; and

(iii) Accidental activation of the equipment.

*   *   *   *   *

(c)   *   *   *

(4) Cells or batteries, including when contained in or packed with equipment, in packages exceeding 30 kg (66 pounds) net weight of batteries must be labeled with the Class 9 label as specified in § 172.447 and marked with the four-digit UN identification number, as applicable.

(5) The operator of a motor vehicle that contains a material of trade must be informed of the presence of the hazardous material (including whether the package contains a reportable quantity) and must be informed of the requirements of this section.

(d) *Aggregate gross weight.* Except for a material of trade authorized by paragraphs (a)(1)(iii) and (a)(7)(iii) of this section, the aggregate gross weight of all materials of trade on a motor vehicle may not exceed 200 kg (440 pounds).

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Issued in Washington, D.C., on July 31, 2026, under the authority delegated in 49 CFR § 1.97.

Paul J. Roberti,
Administrator, Pipeline and Hazardous Materials Safety Administration

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