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Considerations for Municipalities/Permitting Operations of Lithium-Ion Battery Powered Micromobility Devices: U.S. Pipeline and Hazardous Materials Safety Administration Guide

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The United States Pipeline and Hazardous Materials Safety Administration (“PHMSA”) issued a document titled:

Considerations for Municipalities for Permitting Operations of Lithium-Ion Battery Powered Micromobility Devices (“Guide”).

The reference to micromobility devices includes eBikes, eScooters, and other lithium battery powered micromobility devices.

PHMSA notes that micromobility devices are increasingly common, stating:

...As municipalities permit shared micromobility operations in their jurisdictions, they should be aware of the hazards posed by lithium batteries and the requirements for safe transportation of these materials.

The Guide is intended to provide a list of consideration for municipalities in regard to the following:

- Federal Hazardous Materials Regulations (“HMR”).
- Incident reporting requirements.
- End-of-life management.
- General fire safety messaging.

The North American Bikeshare & Scootershare Association estimates that 401 cities had at least one shared micromobility system in 2022. This is estimated to be a 35% increase from 2021. Such growth has meant that more lithium-ion batteries are being transported, changed, stored and disposed of in populated areas.

Note that lithium batteries are classified as a Class 9 hazardous material based on the possibility that they can catch fire in a process known as “thermal runaway”. A thermal runaway is an explosive, aggressive fire that spreads rapidly, can reignite, and is challenging to extinguish.

In developing the Guide, PHMSA states that it contacted more than twenty entities asking about their experiences with micromobility rental permitting. Further, it met with seven municipalities and four

micromobility companies. Therefore, the considerations described in the Guide are stated to be based on information received from the respondents. Additional sources of information include:

- Consideration of existing literature.
- PHMSA's subject-matter expertise in lithium-ion battery transportation.

Components of the Guide include:

- Verify the company's knowledge of lithium battery transportation and end-of-life regulations.
- Consider the risks of using of private residences as charging locations for commercial operations.
- Verify the locations of charging stations and company business addresses.
- Compliance with DOT incident reporting requirements.
- Developing a program to track incidents, accidents, and/or end-of-life equipment.
- Verify that all lithium batteries were tested adequately per the UN Manual of Tests and Criteria.
- Require a plan of action to properly manage Damaged, Defective, and Recalled lithium-ion batteries.

The appendices include:

- References.
- List of Interviewees.

A copy of the Guide can be downloaded [here](#).