CITY OF RENO

Memorandum

DATE: November 3, 2025

TO: Mayor and City Council

THROUGH: Jackie Bryant, City Manager

FROM: David Cochran, Fire Chief

DEPT: Reno Fire Department

SUBJECT: Findings Memo – Lithium-Ion Battery Monitoring and Registry Feasibility

In response to a request initiated by Mayor Schieve, the Fire Department and Business License Division have continued efforts to assess lithium-ion battery-related fire risks and the feasibility of a local registry for businesses handling these materials.

Background

The following list of fires were investigated and noted as fires that included a lithium-ion battery by the Fire Inspector team.

- 9/3/17 - Vape pen spontaneously combusted on the front seat of a vehicle.
- 8/1/18 - Lithium-ion battery charger combusted while plugged in.
- 6/21/19 - E-bike battery inside garage combusted while plugged in and charging.
- 5/1/21 - Recycled Batteries spontaneously combusted while sitting in a 55-gallon drum.
- 8/11/21 - Recycled Batteries spontaneously combusted while sitting in a 55-gallon drum.
- 2/25/22 - Vape pen spontaneously combusted while on top of bed.
- 11/21/22 - Unidentified battery device burned in a parking garage.
- 5/10/23 - An unidentified battery device burned in a parking lot.
- 8/15/24 - E-bike battery combusted while charging inside a residential kitchen area.

In summary, there are nine fires that have been investigated by RFD and can be attributed to lithium-ion batteries over the last eight years.

Findings and Actions

- Warehouse Documentation Using First Due - The Fire Department will begin documenting lithium-ion battery storage and handling locations using the First Due software platform. This will enhance our ability to track facilities that store or process lithium-ion batteries and improve emergency response readiness.

- Ongoing Trend Monitoring - Staff will continue to monitor and document trends related to lithium-ion battery incidents, including fire investigations, business activity, and regulatory developments. This will support future policy recommendations and ensure the City remains informed on emerging risks.
- Field-Based Documentation - Lithium-ion battery locations will also continue to be documented through routine inspections and emergency calls for service. This field-based data collection will help maintain an up-to-date understanding of where lithium-ion batteries are present and how they are being managed across the city.
- Fire Suppression Requirements - For all identified locations, appropriate structures and fire suppression systems are required to support fire suppression efforts specific to lithium-ion battery hazards. These requirements are critical to ensuring responder safety and minimizing risk to surrounding properties.

Additional Actions for Oversight of Lithium Battery Facilities

The following list highlights actions underway and steps that are being evaluated as possible additions to current requirements to strengthen fire prevention efforts and responder safety related to lithium-ion batteries.

1. Require Hazardous Materials Permits
    - Currently, RFD assigns an operational permit to and lithium-ion battery storage in excess of 15 cubic feet. This ensures that facilities storing lithium metals, electrolytes, or other hazardous components obtain the appropriate hazardous materials permits.
    - One option being evaluated is requiring a specific HAZMAT permit which is a type of operational permit under Section 105 of the internation fire code.
2. Classify High-Hazard Occupancies
    - Designate facilities as high-hazard occupancies or Battery Energy Storage System (BESS) facilities when applicable, triggering more stringent fire protection and monitoring requirements.
    - This option is being evaluated for feasibility by our inspectors and the Development Services team. Currently, the city has less than 15 facilities that could be evaluated under this classification.
3. Enforce Fire Code Compliance
    - Inspectors currently verify compliance with fire code provisions, including structural separation, fire barriers, explosion control, and proper storage configuration for large quantities of batteries.
4. Mandate Emergency Response Plans
    - This is part of the current fire code and requires facility operators to submit emergency response plans specific to lithium-ion battery incidents, including thermal runaway, explosion, and toxic gas scenarios.
5. Coordinate Pre-Incident Planning
    - Establish coordination between the facility and the fire department regarding access, water supply, suppression systems, and pre-incident planning to ensure rapid and effective response.