

Emergency Response Plan: Operational E-Quads

Date: September 16, 2026

Operator: Spin

Jurisdiction: City of Baltimore, Department of Transportation (BCDOT)

Vehicle Type: Operational & Utility E-Quads (Fleet Operations)

1. Incident Command & Contact Architecture

In any incident, Spin enforces a strict 24/7 internal escalation ladder tied directly to municipal emergency dispatchers.

- **Spin Emergency Operations Center:** Group Text directly between Spin local operations leaders and BCDOT Program staff. (currently active)
- **Baltimore Ops Lead Direct Contact:** grant.sutton@spin.pm, brandon.day@spin.pom
- **Local Emergency Services:** Baltimore City Fire Department (BCFD) / Baltimore Police Department (BPD) via **911**
- **Non-Emergency Municipal Reporting:** Baltimore **311 System** (Integrated via API for vehicle clearance)

2. Hazard Categorization & Action Protocols

Category A: Lithium-Ion Thermal Runaway / Fire Incident

- **Trigger:** Severe impact, puncture, water immersion, or catastrophic battery malfunction.
- **Immediate Field Actions:**
 1. **Isolate:** Maintain a minimum 30-foot perimeter around the vehicle. Do not attempt to move a smoking or venting battery.
 2. **Notify:** Contact BCFD via 911 immediately. Inform dispatch that the incident involves a **commercial Lithium-ion battery system**.
 3. **Containment:** If safe for certified personnel, deploy Class D or Lithium-fire designated extinguishing agent (e.g., F-500, Lith-Ex) to suppress nearby ignition sources. Do not apply small amounts of water (water deluge is required if suppressed by fire personnel).
 4. **Post-Incident Recovery:** Once cleared by BCFD, transport the compromised unit using a specialized Hazmat containment case to the local warehouse isolation facility.

Category B: Severe Collision / Traffic Incident involving E-Quads

- **Trigger:** Collision involving pedestrian, motor vehicle, or severe operator injury during operations.
- **Immediate Field Actions:**
 1. **Emergency Medical Response:** Call 911 immediately if injuries are present.

2. **Scene Preservation:** Ensure the operator and vehicle are rendered safe without altering evidence if law enforcement is responding.
3. **Telematics Lock:** The BEOC remotely locks power to the unit, downloads black-box telemetry (GPS, speed, acceleration vectors), and marks the asset as unavailable.
4. **On-Site Ops Dispatch:** Local Spin Safety Manager dispatches to the location within **30 minutes** to coordinate with local authority reports.

Category C: Severe Weather & Extreme Events (Hurricanes, Flooding, Blizzards)

- **Trigger:** National Weather Service warnings or BCDOT Emergency Declarations.
- **Immediate Field Actions:**
 1. **Fleet Securement:** Halt all operational e-quad dispatching.
 2. **Staging Protocol:** Return all active operational e-quads to the local operations hub within **4 hours** of a city-mandated order.
 3. **Low-Lying Area Clearance:** Priority recovery sweeps for units located in Baltimore severe flood zones (e.g., Inner Harbor waterfront, Fells Point).

3. Battery Safety & Facility Protocols

- **On-Board Fire Extinguishing Device:** Our Honda e-quad is equipped with a Class ABC fire extinguishing device suitable for lithium-ion battery fires. A Class D extinguisher is meant for combustible metal fires, which in this case is not applicable since lithium ion batteries do not contain metallic lithium. Lithium ion fires are treated like Class B fires (flammable liquids) so a 5lb ABC fire extinguisher is most appropriate. Our ABC fire extinguisher is stored in the rear cabinet in a designated safety kit for quick removal.
- **On-Board Safety Kit:** Our PPD e-quad contains a comprehensive safety kit located in the rear cabinet. This includes the following items:
 - Containment: (1) 5-gal bucket containing a polybag with (1) gal of vermiculite (+ 2 spare polybags inside).
 - Fire & Cleaning: (1) 5lb ABC Extinguisher, (1) fire blanket, (1) fire apron, (1) mini broom & dustpan.
 - PPE: (1) face shield, (1) pair safety glasses, (2) disposable dust masks, (2) sets nitrile gloves, (1) pair thermal welding gloves.
- **Charging Infrastructure Safety:** Operations facilities utilize Orbis boxes and charging racks equipped with automated circuit interrupters. Our in-person supervision of charging activities is compliant with the local fire code.
- **Damaged Asset Quarantining:** Any e-quad or battery experiencing thermal stress or mechanical deformation is quarantined in a fire-rated external steel containment bin located at least 15 feet away from structural walls.
- **Hazmat Disposal:** Damaged lithium cells are handled under EPA Subtitle C guidelines in partnership with certified regional battery recyclers.

4. E-Quad Operation Guidelines

- **Use of Bike Trails & Shared Public Lanes:** As a safety precaution, our Spin operations team will only operate the e-quad in approved bike lanes and shared public lanes where a maximum speed of 15 mph is appropriate. The use of bike trails will be prioritized whenever available for efficient and safe route-planning on a daily basis.
- **No Sidewalk Usage:** Due to the e-quad bike size, our local team will be strictly advised not to operate the e-quad on public sidewalks, shoulders, or crosswalks to ensure the public right-of-way remains clear for pedestrians. If sufficient space is available on wider sidewalks or plazas, our team will exercise discretion to park the e-quad for short periods (e.g. 5 minutes) in a respectful manner that does not obstruct the right-of-way.
- **Maximum Speed:** Our local team will operate the e-quad PDD at a maximum speed of 15 mph in approved bike trails and shared public lanes. We have set this maximum speed level in the e-quad device firmware to prevent usage at excessive speeds.
- **Yield to Emergency Vehicles:** To confirm, Spin's team will yield to and stop for emergency vehicles in appropriate situations while operating our e-quad PPD.
- **Work & Construction Zones:** To confirm, Spin's team will respond appropriately to work/construction zone traffic control measures while operating our e-quad PPD. This includes responding appropriately to manual traffic direction, such as directions to detour, drive the wrong way, drive on a shoulder or otherwise disobey programmed routing and normal traffic regulations.
- **Always Yield to Pedestrians:** To confirm, Spin's team will always yield to pedestrians as a safety precaution while operating our e-quad PPD.

5. Public Right-of-Way & Sidewalk Clearance (311 SLA)

To protect ADA compliance and public safety on Baltimore thoroughfares:

- **Immediate Obstruction Removal:** Operational or rebalancing e-quads blocking ADA ramps, transit stops, or active travel lanes are assigned a **Tier 1 High-Priority SLA**.
- **Response Window:** Field operations staff will clear or relocate high-hazard obstructions within **1 hour** of notification via 311 or municipal dispatch.
- **General Rebalancing SLA:** Non-hazardous misparked units are retrieved or rebalanced within **2 hours**.

6. E-Quad PDD Labeling & Standard Safety Vehicle Requirements

- **PPD Unique Identification Number:** To confirm, Spin's e-quad PDD will be visibly marked with a means of identifying the company (Spin) and a unique identification number for the PDD similar to our shared e-scooters.
- **PPD Electric Fuel Source Identification:** To confirm, Spin's e-quad PPD will be externally marked as "electrically powered device" with an electricity symbol.
- **Placarding for Hazardous Materials:** To confirm, Spin will apply a hazardous material external placard on the rear of the e-quad PPD to fully comply with applicable federal PHMSA requirements for transporting lithium-ion batteries under approved weight-limits. Per PHMSA (49 CFR § 173.185), Spin will transport UL 2271/72 certified lithium ion batteries in secured Orbis boxes with the following markings: (1) a Class 9 Hazard Label, (2) proper shipping name & ID with text "UN3480, Lithium Ion Batteries" printed near the hazard label; (3) Lithium Battery Mark: The standard border mark containing the UN number (UN3480) and a valid telephone number for emergency or shipment details; (4) Cargo Aircraft Only Label since they will only be transported by ground.
- **Compliance with TR 21-104.3 (c):** Per the requirements, Spin's e-quad PPD will not be used in a manner that (1) unreasonably interferes with traffic; (2) blocks public rights-of-way; (3) transports hazardous materials regulated under the Hazardous Materials Transport Act and required to be placarded under 49 C.F.R. Part 172, Subpart F; or (4) operates on a sidewalk or crosswalk at a speed exceeding 7 miles per hour.
- **Compliance with TR 21-104.3 (d):** Consistent with applicable requirements, Spin's e-quad PPD will (1) be visibly marked with a unique identifying number; (2) Be visibly marked with a means of identifying the personal delivery device operator (Spin); (3) visibly marked with contact information for Spin; (4) be equipped with a system that enables the personal delivery device to come to a controlled stop; (5) be covered by: (i) An insurance policy that provides general liability coverage of at least \$100,000 for damages; or (ii) Another form of security acceptable to the Administration that adequately provides the benefits required by item (i) of this item; (6) be equipped with lighting devices as required by the Administration after consultation with industry stakeholders; (7) obey all traffic and pedestrian control devices; and (8) be subject to municipal or county permitting requirements, where applicable.
- **Laminated Card for PPD Disable Procedures:** To confirm, Spin will post a laminated card near the steering wheel to briefly explain how to disable our e-quad PDD if necessary, to maintain public safety.
- **Front and Rear Lighting:** Spin's e-quad PPD manufactured by Honda Fastport is equipped with full front and rear driving lights, turn signal blinkers, and hazard light integration. Specifically, the front white headlight is visible from a distance of 500+ feet and the rear red light or reflector is visible from 600+ feet.

- **Shatter Proof Windshield:** To confirm, Spin's PPD e-quad manufactured by Honda is equipped with a plastic shatter proof windshield.

7. Reporting & Auditing

- **City Notification:** BCDOT will receive a written Incident Report within **24 hours** for any Category A event or serious injury collision.
- **Traffic Citations:** For the purposes of traffic citations, the operator of Spin's e-quad PPD should be treated as a bicyclist. This recommended interpretation aligns with precedent established in most states (e.g. California) across the country, where an e-quad bike falls under the state vehicle definition of a Class 1 electric bicycle.
- **Post-Incident Analysis:** Spin performs internal root-cause analyses on hardware or operational failures and provides corrective action documentation to the city upon request.