



**Office of the State Fire Marshal  
California Incident Data and Statistics Program  
National Fire Incident Reporting System (NFIRS)**

## **Coding Fires Related to Lithium-ion Batteries and Electric Vehicles**

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**The following includes coding options for fire incidents involving electric vehicles and handheld or standing devices powered by lithium-ion batteries.**

**Plus-One Codes:**

Rechargeable lithium-ion battery-powered vehicles and devices are relatively new technology. Because of this, there are very few base codes in NFIRS that appropriately capture these unique incidents. To properly code these fire events, we must use plus-one codes. Plus-one codes must be manually added to your reporting software. For a complete list of the plus-one codes implemented at the California State level and instructions on adding plus-one codes to your software, refer to the [California Plus-One Codes](#) document on the [CalStats public webpage](#).

*Note: Electric vehicles, e-bikes, hoverboards, and other rechargeable battery-powered transportation devices are categorized the same as gas-powered vehicles and motorcycles.*

**Wildland Fire:**

If a wildland fire is caused by an electric vehicle but the vehicle itself did not ignite, then only one report is needed (Use Table 2: Wildland coding guide).

**Wildland Exposure Fire:**

If an electric vehicle fire spreads to vegetation, you must complete two reports, one for the initial vehicle fire (Exposure 0) and a second one for the wildland exposure fire (Exposure 1).

Exposure 0 report = Vehicle Fire (Use Table 1: Other Fires coding guide)

Exposure 1 report = Wildland Fire (Use Table 2: Wildland Fires coding guide)

## Table 1: Other Fires (Not Wildland)

<p style="text-align: center;"><b>Electric Vehicle Fires</b> <i>Including all battery-powered passenger vehicles</i></p> <p><b><u>Basic Module</u></b> <b>Incident Type:</b> 130 - Vehicle fire, other or 131 - Vehicle fire</p> <p><b><u>Fire Module</u></b> <b>Cause of Ignition:</b> 3 - Failure of equipment or heat source</p> <p><b>Factors contributing to ignition:</b> 30L - Lithium-ion battery malfunction (Plus-one code)</p> <p><b>Mobile Property Involved in Ignition:</b> 2 - Involved in ignition but did not itself burn or 3 - Involved in ignition and burned.</p> <p><b>Mobile Property Type:</b> 10E - Electric Vehicle (Plus-one code)</p> <p><b>Make:</b> Use the appropriate code. If not present, select OO - Other make.</p>	<p style="text-align: center;"><b>Fires Caused by Battery-Powered Device</b> <i>Not Vehicle or Wildland</i></p> <p><b><u>Basic Module</u></b> <b>Incident Type:</b> Use best fit for fire type found upon arrival (excluding vehicle and wildland fires)</p> <p><b><u>Fire Module</u></b> <b>Cause of Ignition:</b> 3 - Failure of equipment or heat source</p> <p><b>Factors contributing to ignition:</b> 30L - Lithium-ion battery malfunction (Plus-one code)</p> <p><b>Equipment Involved in Ignition:</b> 229L - Lithium-ion battery (Plus-one code)</p> <p><b>Equipment Power Source:</b> 12 - Batteries and low voltage (Less than 50 volts)</p>
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## Table 2: Wildland Fires

<p style="text-align: center;"><b>Caused by Electric Vehicle</b> <i>Including all battery-powered passenger vehicles</i></p> <p><b><u>Basic Module</u></b> <b>Incident Type:</b> Use best fit Wildland Incident Type code (141-143 &amp; 171-173).</p> <p><b><u>Fire Module:</u></b> Do not use the Fire module, use the Wildland module.</p> <p><b><u>Wildland Module</u></b> <b>Cause of Ignition:</b> 0V - Vehicle (plus-one code), or 6 - Exposure fire if the wildland fire was caused by another fire</p> <p><b>Factors contributing to ignition:</b> 30L - Lithium-ion battery malfunction (Plus-one code)</p> <p><b>Mobile Property Type:</b> 10E - Electric Vehicle (Plus-one code)</p>	<p style="text-align: center;"><b>Fires Caused by Battery-Powered Device</b> <i>Not Vehicle</i></p> <p><b><u>Basic Module</u></b> <b>Incident Type:</b> Use best fit Wildland Incident Type code (141-143 &amp; 171-173).</p> <p><b><u>Fire Module:</u></b> Do not use the Fire module, use the Wildland module.</p> <p><b><u>Wildland Module</u></b> <b>Cause of Ignition:</b> 2 - Equipment or 3 - Smoking (if e-cigarette or other smoking device)</p> <p><b>Factors contributing to ignition:</b> 30L - Lithium-ion battery malfunction (Plus-one code)</p> <p><b>Equipment Involved in Ignition:</b> 229L - Lithium-ion battery (Plus-one code)</p>
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