ELECTRIC VEHICLE (EV) BATTERY TRACEABILITY RECORD

J3327

Rationale: Enabling a Traceable Battery Value Chain

The global transition towards electric mobility and Battery energy storage systems has intensified the need for transparent and responsible Battery supply chain documentation. The SAE Battery Global Traceability Committee recognizes this imperative. It has developed this standard to facilitate putting important Battery information in a digital record. This allows value chain stakeholders to make informed decisions when it comes to sourcing and manufacturing. This also supports recycling and re-use of important mined materials.

This standard establishes a set of industry-defined practices for a Battery traceability record that accomplish the following objectives:

1. To provide a consistent, shared format and vocabulary for identifying and recording key elements of traceability, including:
    a. Battery information
    b. Applicable Critical Minerals contained within the Battery
    c. Battery Components contained within the Battery
    d. Economic Operator/Qualified Manufacturer and reliable Chain of Custody information, i.e. origination of materials, components and products along the value chain
2. Leverage existing standardization and specifications, supporting one common global practice.
3. Create efficiency throughout the global Battery supply chain and support safer dismantling, re-use, remanufacturing, and recycling of Batteries.
4. Provide models for Battery data management.

Accompanying this standard is “Process and Calculation Models for Battery Material Traceability.” This document illustrates how Traceability—and associated operations for determining value of minerals—can be conducted in a manner consistent with this standard as well as others cited..

1. SCOPE

The initial scope of this standard is focused on the broadly-supported set of objectives named above. The committee recognizes the need for standardization in other, important areas that will form the basis of future revisions to this standard and other, related standards. These include, among other topics, supply chain modeling, Associated Critical Mineral information verification, and extended producer responsibility.

As the International Energy Agency (IEA) notes: “traceability systems can enable the collection of data on product origin, geographic path, the sequence of entities that held ownership or control over the product and its physical evolution.[1]" This standard centers on establishing **a consistent, globally-recognized practice for electric vehicle Battery data collection** that is the foundation of an audit trail and independent verification within the EV Battery supply chain. This practice also supports Reuse and Recycling.

[1] IEA (2025), The Role of Traceability in Critical Mineral Supply Chains, IEA, Paris https://www.iea.org/reports/the-role-of-traceability-in-critical-mineral-supply-chains, License: CC BY 4.0, p. 7