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	STANDARD: **OSHA 29 CFR 1910.305 & NFPA 70E**	AUDIT FREQUENCY: **Monthly Audit**

Fleet Battery Maintenance Inspection Inspection Checklist

Operational Scope: This fleet battery maintenance inspection checklist governs the safety verification of lead-acid and lithium-ion batteries across all commercial fleet vehicles. Its primary objective is mitigating chemical burns, electrical arc flash hazards, and sudden operational failures in compliance with federal safety regulations.

MANDATORY PPE:	Acid-Resistant Gauntlet Gloves (NFPA 70E Compliant), Chemical Splash Goggles (ANSI Z87.1), Face Shield (Full-Coverage), Rubber Apron, Steel-Toe Boots (ASTM F2413)
PREREQUISITES:	Ensure vehicle ignition is completely off and keys are removed from the ignition switch. | Verify emergency eyewash station and chemical neutralization spill kit are within 25 feet and fully operational. | Disconnect all non-essential onboard electrical accessories to prevent sparking during terminal inspection.

VISUAL & PHYSICAL INTEGRITY

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
1	**Battery Casing & Housing**	Inspect for cracks, bulging, warping, or signs of physical trauma. Case must be completely dry and free of structural compromise.	**Critical (Immediate Out of Service)**	**[ ] PASS [ ] FAIL [ ] N/A**
2	**Hold-Down Brackets & Mounting Tray**	Verify battery is securely anchored to prevent shifting or vibration damage during transit. Fasteners must be torqued to manufacturer specifications.	**Warning**	**[ ] PASS [ ] FAIL [ ] N/A**
3	**Terminal Posts & Connectors**	Check for heavy sulfation, white/blue crystalline corrosion, pitting, or loose terminal clamps. Connections must be firm and mechanically secure.	**Standard**	**[ ] PASS [ ] FAIL [ ] N/A**

ELECTRICAL & ELECTROLYTE PERFORMANCE

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
4	**Electrolyte Fluid Level (Flooded Batteries)**	Check individual cell fluid levels. Electrolyte must cover the lead plates completely; top off with distilled water only if necessary, without overfilling.	**Warning**	**[ ] PASS [ ] FAIL [ ] N/A**
5	**Open-Circuit Voltage (OCV) Test**	Measure resting voltage using a digital multimeter. Standard 12V flooded/AGM batteries must read a minimum of 12.6V when fully charged.	**Standard**	**[ ] PASS [ ] FAIL [ ] N/A**
6	**Load Test / State of Health (SOH)**	Perform a carbon pile load test or conductance test. Battery must sustain at least 50% of its Cold Cranking Amps (CCA) rating for 15 seconds without dropping below 9.6V.	**Critical (Immediate Out of Service)**	**[ ] PASS [ ] FAIL [ ] N/A**

SAFETY VENTING & AUXILIARY SYSTEMS

#	COMPONENT / ITEM	VERIFICATION CRITERIA & ACCEPTANCE STANDARD	SEVERITY	STATUS
7	**Battery Vent Caps & Tubing**	Ensure all cell vent caps are tightly seated and remote venting tubes are unobstructed to prevent dangerous hydrogen gas accumulation.	**Critical (Immediate Out of Service)**	**[ ] PASS [ ] FAIL [ ] N/A**
8	**Thermal Management & Cabling Insulation**	Inspect positive and negative battery cables for fraying, exposed copper, melting, or heat damage. Cable insulation must be intact end-to-end.	**Critical (Immediate Out of Service)**	**[ ] PASS [ ] FAIL [ ] N/A**

Certified Fleet Technician / Inspector Signature: _____	**Date / Time:** _____	**Badge / Cert #:** _____
Fleet Operations Manager / Safety Supervisor Sign-off: _____	**Review Date:** _____	**Audit Status:** [ ] Approved [ ] Rectify

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