



Alternative Power Technical Committee (APTC)

Location: TEAMS

Date: July 15, 2024

Agenda

I.	<p>Call to Order, Welcome</p> <p>Anti-trust statement</p> <p><i>The exchange of many types of information between AEM members that concerns common problems is legal, proper and essential to fulfilling the legitimate purposes of AEM. However, some subjects are not proper for discussion, either directly or indirectly. Antitrust laws preserve and promote free competition, the basis of a free-market economy. AEM unequivocally supports the policy of competition and reaffirms its uncompromising intent to comply strictly in all respects with those laws.</i></p>	
II.	<p>Approval of Agenda and Minutes</p> <ul style="list-style-type: none"> Agenda - Approved Minutes - Approved <p>Minutes - 2024.06.04 - APTC.docx</p>	<p>John Hunter - Komatsu</p>
<p>Old Business</p>		
III.	<p>Update from TC 127/WG 17 – If needed</p> <ul style="list-style-type: none"> WG 17 is looking at the suite of standards under 127. This group is looking to review electrification activity for EMM that involve replacing the diesel engine, powering earthmoving equipment as defined in ISO 6165, with a battery(s) and electrical components i.e., Traction motors, electric actuators, electric pumps etc., and how those activities impact standards that support the EMM industry. <ul style="list-style-type: none"> Intent is to use ISO 5757 and distribute to the other technical committees and use as a template to form working groups to perform these types of assessments in other technical committees. <p>Notes:</p> <ul style="list-style-type: none"> WG consultation is out and available for review. <ul style="list-style-type: none"> Review period ends on 8/5 Next Steps: Prioritize existing documents to best utilize TC’s future activities <ul style="list-style-type: none"> ISO13766, 14990 are both critical standards <p>Action Items:</p> <ul style="list-style-type: none"> All interested members – provide feedback by 8/5/24 <p>Other Standards Related Issues:</p> <ul style="list-style-type: none"> Link to the Google docs spreadsheet ISO 22543 – Bystander awareness: document is approved. Update on ISO 14990 – Discussion <p>Notes:</p>	<p>Kevin Lueschow – Caterpillar and/or Jon Spomer – Doosan Bobcat</p>

	<ul style="list-style-type: none"> • None <p>Action Items:</p> <ul style="list-style-type: none"> • None 	
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Updates from working groups

IV.	<p>DC Arc Flash WG</p> <ul style="list-style-type: none"> • <i>Update from previous WG meeting</i> <p>Notes:</p> <ul style="list-style-type: none"> • At the last WG meeting, the group formed a consensus • Letter is being developed to express this position <p>Action Items:</p> <ul style="list-style-type: none"> • Dan – send letter to Sam • Sam – Circulate to APTC 	John Hunter - Komatsu
V.	<p>EU Battery Regulation WG</p> <ul style="list-style-type: none"> • <i>Carbon footprint calculation for Industrial battery has been published. WG is meeting on July 17th @11am to discuss</i> <p>Notes:</p> <ul style="list-style-type: none"> • Industrial battery regulation is very similar to EV • Education and comments are needed to communicate differences between the battery types/applications • Specific actions/form of communication is TBD <p>Action Items:</p> <ul style="list-style-type: none"> • EU Battery WG – prepare for Wed’s meeting <ul style="list-style-type: none"> ○ Note* A takeaway from this meeting should be some form of industry position rather than relying on individual company feedback 	Dan Willy - Komatsu
VI.	<p>ERG Hosting Site/Funding WG</p> <ul style="list-style-type: none"> • <i>Progress update/Potential candidates</i> • <i>NGO: UL Fire Safety Research Institute (UL FSRI) vs UL commercial testing site</i> <p>Notes:</p> <ul style="list-style-type: none"> • Currently, UL FSRI is the best prospect, but nothing has been decided • APTC is requesting NFPA’s confirmation on the ERG site’s future <p>Action Items:</p> <ul style="list-style-type: none"> • Peter – Gather information from NFPA regarding the ERG site’s future (identify decision maker within NFPA on this topic, next steps, timeline for those next steps, etc.) • Sam – include Scott Sells to ERG conversation • All interested members – reach out to Sam to be included in future communication/WG 	Peter Schecter – John Deere

Emergency Response Guide – Li-ion Batteries		
VII.	<ul style="list-style-type: none"> • <i>The existing ERG directs users to a link that is no longer being actively maintained by the NFPA. Therefore, the WG would like to make the following proposal:</i> • <i>Change the existing phasing to the following:</i> ERG Rephrasing Proposal.docx <p>Notes:</p> <ul style="list-style-type: none"> • Motioned, Seconded, approved <p>Action Items:</p> <ul style="list-style-type: none"> • Sam – update existing information as proposed 	Jason Flanagan – CAT
BEHM Symbols – Updates		
VIII.	<ul style="list-style-type: none"> • <i>Looking for a new project lead</i> • <i>Next meeting is July 18th</i> <p>Notes:</p> <ul style="list-style-type: none"> • 5-7 symbols that are currently in the works, future steps include being submitted to TC127 for approval <p>Action Items:</p> <ul style="list-style-type: none"> • All interested members – consider joining WG/becoming the new project lead 	Valerie Lynch - AEM
Alternative Power Position Paper		
IX.	<ul style="list-style-type: none"> • <i>Only needed if there is a relevant update.</i> <p>Notes:</p> <ul style="list-style-type: none"> • Item can be removed from future agendas <p>Action Items:</p> <ul style="list-style-type: none"> • Sam – remove item from future agendas 	Jason Malcore - AEM
New Business		
Fire Safety Training Opportunities		
X.	<ul style="list-style-type: none"> • <i>Opportunities to present/contribute during fire safety training sessions on tactical considerations for responding to electric and hybrid heavy/off road equipment emergencies</i> • <i>Overview of hazard identification and recognition, location of potential energy sources, etc.</i> <p>Notes:</p> <ul style="list-style-type: none"> • Fire safety continues to be a hot and developing topic. Industry is constantly seeking experts to help educate end-users and other OEMs <p>Action Items:</p> <ul style="list-style-type: none"> • All interested members – consider reaching out to Sam and/or Peter about Fire Safety Training opportunities 	Peter Schecter – John Deere
Parking Lot Items		
XI.	<p>EU - Industrial trucks – TC 110 Hydrogen standards</p> <ul style="list-style-type: none"> • <i>Only needed if there is a relevant update.</i> 	Discussion – all

	<ul style="list-style-type: none"> Update from Jonas Skoglar's meeting with European colleagues <p>The group highlighted following problems:</p> <ul style="list-style-type: none"> IEC 62282-4-101 Fuel cell installation in Industrial truck, some limitations that are strange, some tests that are strange, example dielectric test (based on UL2267), not fully similar regulation level to Regulation ECE-R134 Try to work more between different TC groups within ISO (like ISO TC 197 & ISO TC127) We highlighted some aspects like ECE-R134 (on-road) that are not existing in IEC or UL <ul style="list-style-type: none"> Risk - some of the fuel-cell manufacturer do not have capacity to involve in IEC and ISO standards development Try to avoid using a UL standard as a base for an IEC standard <p>Notes:</p> <ul style="list-style-type: none"> APTC echos the interest for harmonious standards <p>Action Items:</p> <ul style="list-style-type: none"> Sam – communicate APTC's thoughts to Jonas 	
XII.	<p>Battery Charging Standards for Construction Equipment Fleets - OPEI, ARA & AEMP</p> <ul style="list-style-type: none"> Only needed if there is a relevant update. Potential interest in standardizing charging connectors <p>Notes:</p> <ul style="list-style-type: none"> This topic will come up within WG17 - Technical Report 5757 <ul style="list-style-type: none"> Topic will likely include: charger, charger interface, interoperability Potentially a joint working group opportunity APTC emphasizes this is an important topic for the industry <p>Action Items:</p> <ul style="list-style-type: none"> Sam – Keep in communication with Jon S. regarding results of WG17 – Technical Report 5757 conversation and communicate out to APTC 	Discussion – all
XIII.	<p>PFAS – Update</p> <ul style="list-style-type: none"> Only needed if there is a relevant update. <p>Notes:</p> <ul style="list-style-type: none"> No updates in this area Keep at the end of agenda/parking lot item Potential for future update related to batteries <p>Action Items:</p> <ul style="list-style-type: none"> None 	Discussion – all
XIV.	<p>Vermont S. 254 – Battery EPR</p> <ul style="list-style-type: none"> Only needed if there is a relevant update. <p>Notes:</p>	Discussion – all

	<ul style="list-style-type: none"> • Has now been signed into law • Covers chargeable and non-rechargeable batteries of 25lbs or less • Law pertains to battery stewardship: To responsibly dispose of and replace batteries • Key Takeaway – OEMs can follow the law by: <ol style="list-style-type: none"> 1. Direct compliance - Get certified directly 2. Indirect compliance - If OEMs buy batteries from a 3rd party source and the battery supplier is participating/certified, OEMs can follow the law by gaining written confirmation of their supplier's certification. <p>Action Items:</p> <ul style="list-style-type: none"> • None 	
Other Business		
XV.	<ul style="list-style-type: none"> • None 	
Adjourn		
XVI.	<ul style="list-style-type: none"> • Meeting adjourned at 11:00am 	