



Lithium-Ion tools for the trade. The good, the bad, and the ugly.

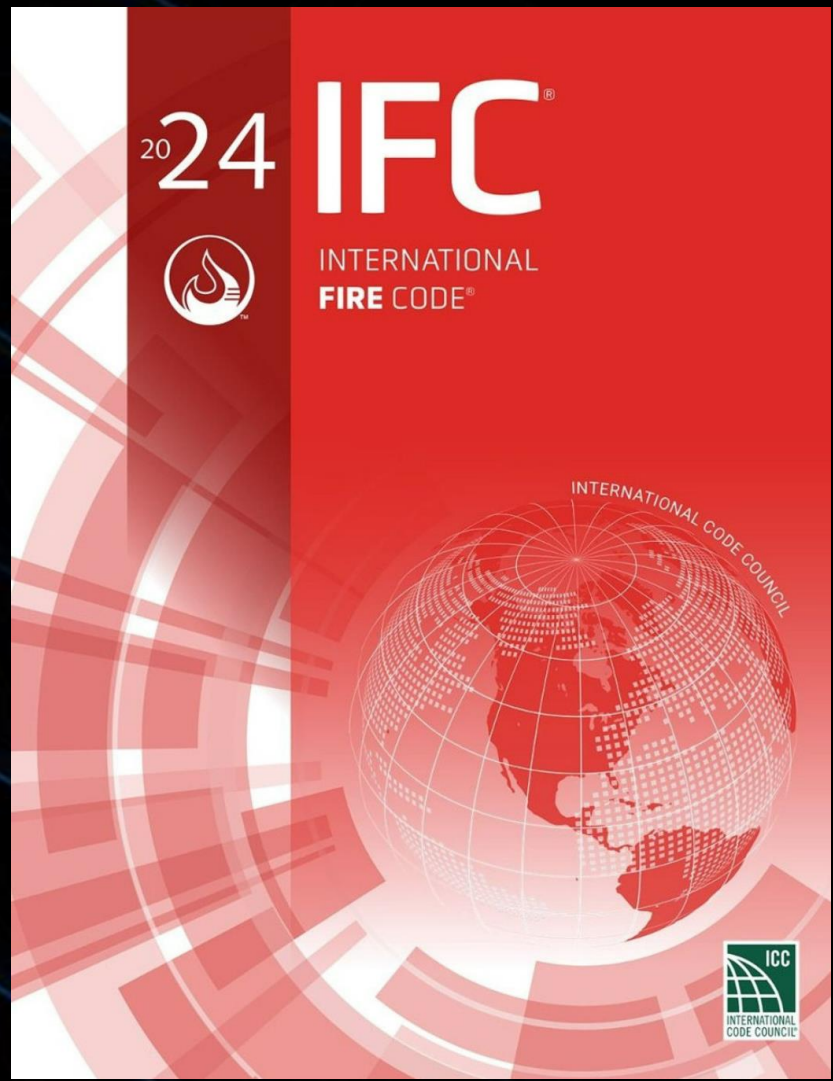
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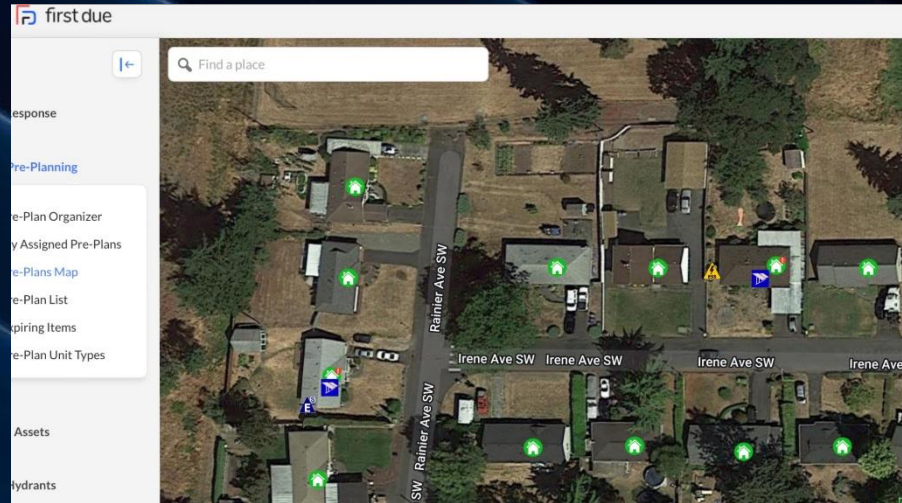
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The most important tool – PREVENTION/CRR



The NEXT most important tool – PRE-PLANNING



- ▶ First Due Size Up
- ▶ PulsePoint
- ▶ Active 911
- ▶ Other Electronic Pre-Planning programs

*Interlocal Agreements with Power agencies must be signed – (Plan Review can catch ongoing installations)

[A] 105.7.2 Battery systems. A construction permit is required to install stationary storage battery systems regulated by Section 1206.2.

[A] 105.7.10 Fuel cell power systems. A construction permit is required to install *stationary fuel cell power systems*.

[A] 105.7.21 Solar photovoltaic power systems. A construction permit is required to install or modify solar photovoltaic power systems. Maintenance performed in accordance with this code is not considered to be a modification and does not require a permit.



Airline Tools



Fire in the Sky: A Pilot's Worst Nightmare

Chris G. Greene takes a close look at these rare but often deadly incidents that are the result of lithium-ion batteries.

EV Fire Response (Tools or Snake Oil?)



- Fire Blanket
- “BEST” tool
- Foam/encapsulators
- Dunk pools



- Class A
- Class B Nonpolar
- Class B Polar
- Class B 3D
- Class B Gas
- Class C
- Class D
- Lithium-Ion Batteries



*Insert AWESOME promo music!



EV Tools



Other Li-Ion Tools



Tools with Merit



- EV Plug
- Fire Blanket
- CellBlock



Lithium-Ion PPE testing



- Contamination of Metal Oxides on PPE
 - CO2 extraction testing
- Testing expected to occur in March
- Results expected to be released in May



TEXAS A&M ENGINEERING



EXTENSION SERVICE



Lithium-Ion Training Resources

- www.FSRI.org
 - Surprise AZ ESS event
 - E-Mobility in Homes
 - Firefighter safety in Photo Voltaic systems
 - EVs in Garages* coming soon
 - ESS in Garages – White paper available
- NPFA training
 - Bulletins & Training
- IAFC training
 - Bulletins & Training
- NVFC training
 - Free training videos
- SCOTT LANCASTER (WSP)
 - Scott.Lancaster@WSP.WA.GOV





Lithium-Ion Batteries... Tools for the Trade

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