



Emergency
911

The Cottage Grove Volunteer Fire Department Inc.

4030 Highway N • Cottage Grove, WI 53527



Business
(608) 839-4343

Electric Vehicle Fires

Electric vehicle batteries consist of individual cells. When a battery cell is damaged it begins to heat up. The heat spreads to other cells of the battery which cause Thermal Runaway. Thermal Runaway can last for hours and can cause the battery to reignite. The following links are to videos explaining the fire and one system for extinguishing the fire. The Rosenbauer BEST system in the video punctures the battery and sprays water directly inside the battery case. The helps cool the battery faster with less water.

<https://www.youtube.com/watch?v=ZWof14cw0PE>

https://www.youtube.com/watch?v=SPMoZOpN_DA

https://rosenbaueramerica.com/wp-content/uploads/2022/04/22-RBA-BEST_Brochure_black-Web.pdf

Another option for fighting Electric Vehicle Fires is Sudzit Utility Nozzle. The Sudzit is a nozzle that can be slid under the vehicle to spray the battery pack directly. The goal is to get as much water on to the battery pack as quickly as possible to prevent thermal runaway. This option does not puncture the battery to spray the water inside the battery pack. It only sprays the exterior of the battery which requires more water and time to extinguish.

<https://www.youtube.com/watch?v=fLa1fe4EIAAs>

https://www.facebook.com/100064043675164/videos/450673570379525?_so=_permalink

The last option that we investigated was the Bridgehill EV Fire Blanket. The blanket would go over the Vehicle and smother out the fire in the engine compartment or passenger compartment. Once that fire is out firefighters could focus on attacking the battery fire. The blankets can be reused. This option would be used in conjunction with one of the other 2 options.

<https://bridgehill.com/news-insights/ev-fire-blanket-test/>