



# Lithium Battery Incident

## PHMSA – NAATBatt 2023



U.S. Department of Transportation  
Pipeline and Hazardous Materials  
Safety Administration

PHMSA: Your Safety is Our Mission

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# Houston TX – April 23, 2017

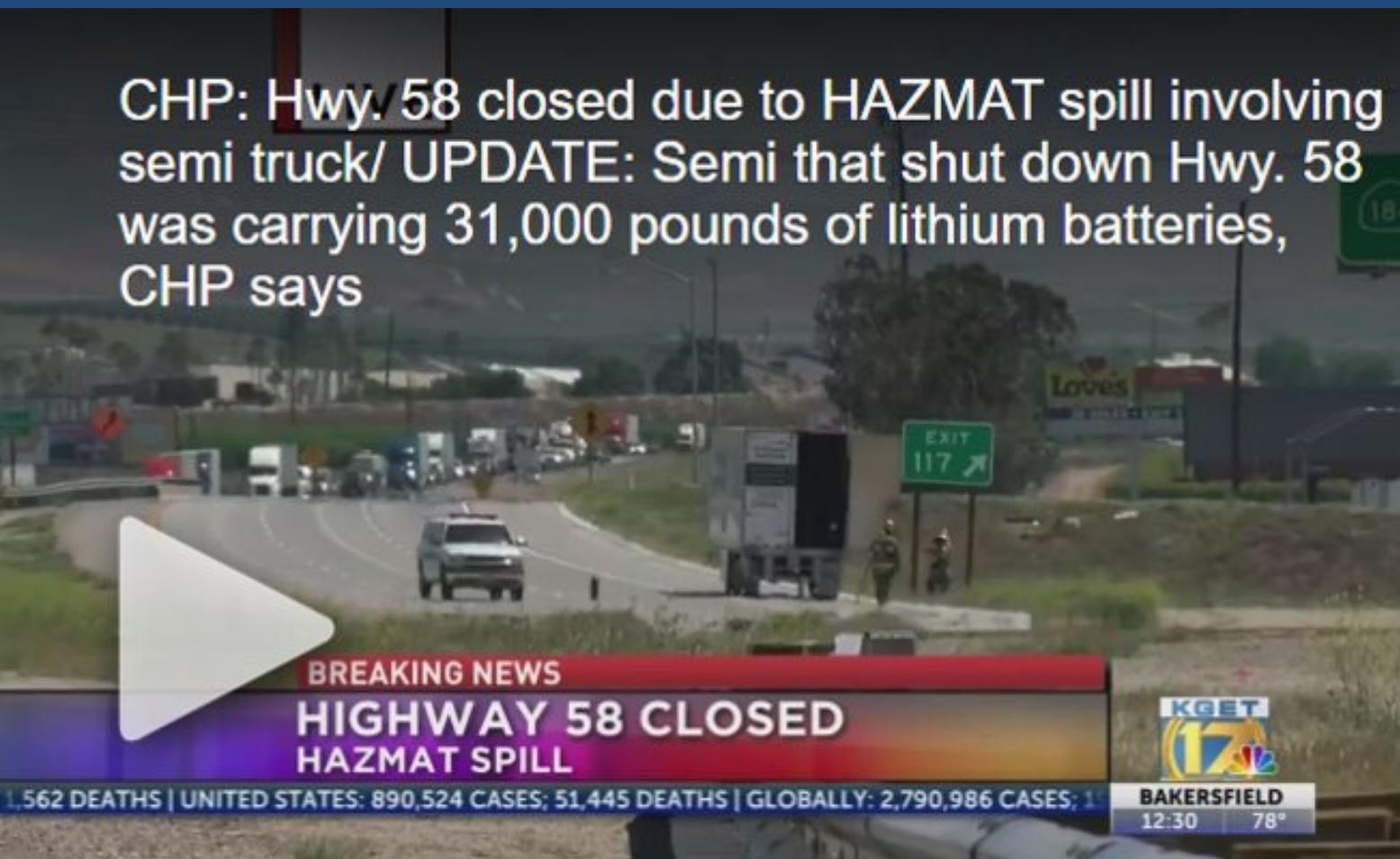


Shipping container exploded while in transportation by rail. There was no warning or indication that lithium batteries were involved.



# Bakersfield, CA – April 27, 2020

CHP: Hwy. 58 closed due to HAZMAT spill involving semi truck/ UPDATE: Semi that shut down Hwy. 58 was carrying 31,000 pounds of lithium batteries, CHP says

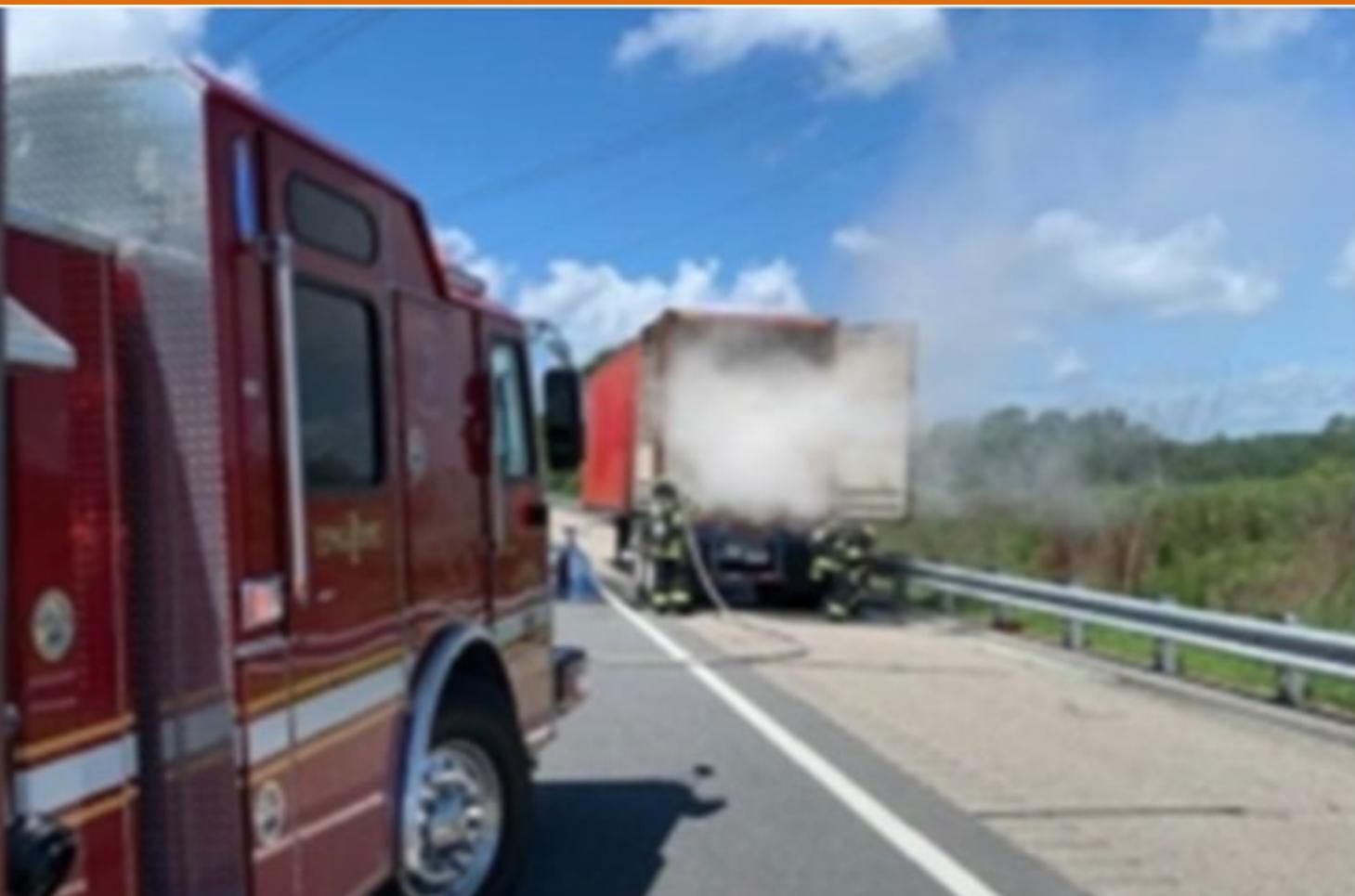


One  
Shipment

Two  
incidents



# Suffolk, VA – August 19, 2021



Ground  
shipment  
headed to  
a port



# Suffolk, VA – August 19, 2021



# Lawrenceville, GA – December 7, 2021



# Rolla, MO – January 27, 2022



A trailer load of new Chevy Bolt batteries got involved in a traffic accident on its way to Oklahoma. Packaging may have played a role in keeping this incident becoming much worse than it was.



# Rolla, MO – January 27, 2022



# San Antonio, TX – February 10, 2022



Use of black shrink-wrap made it difficult to see damage that impacted the cellphones/batteries in the packages.



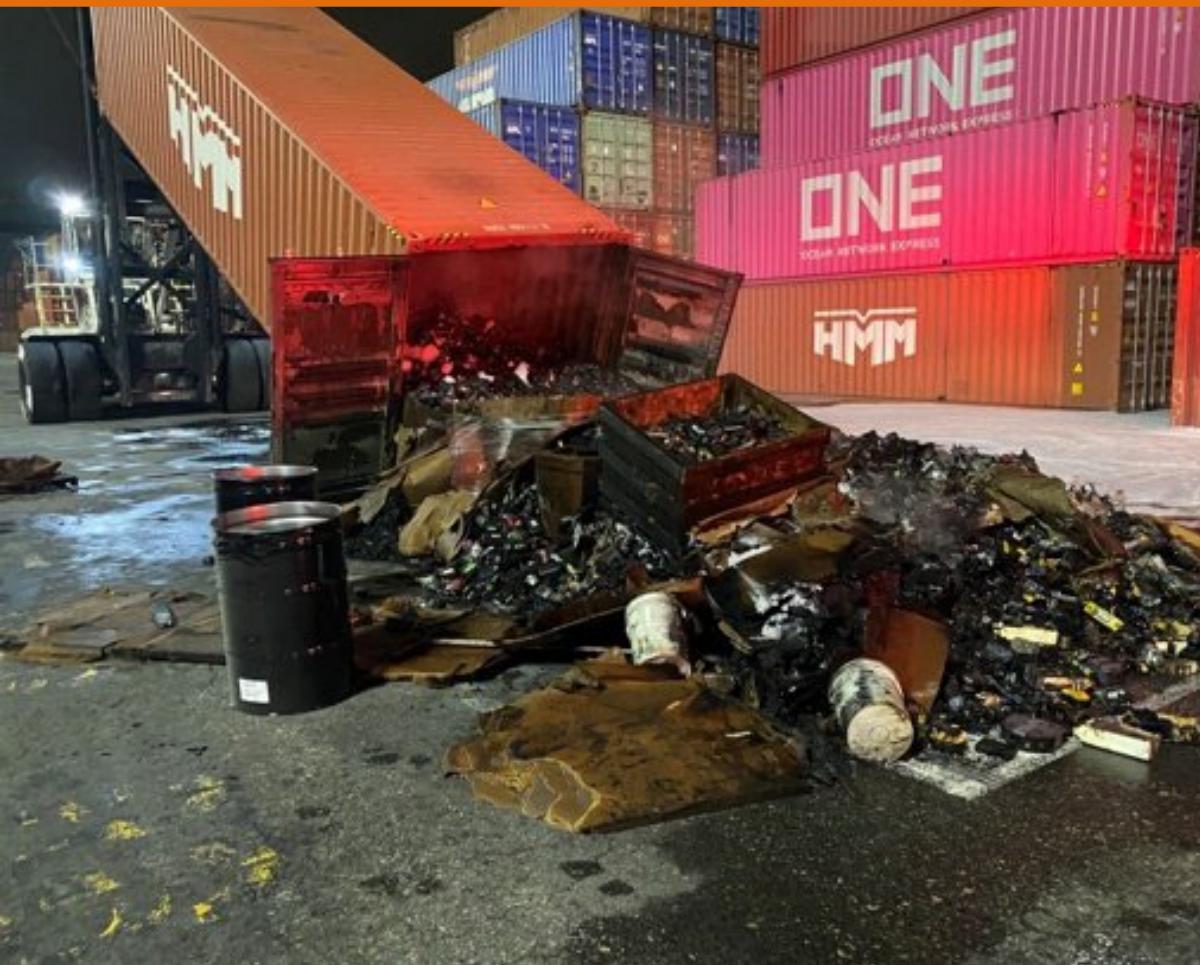
# Port – L.A. Long Beach – March 4, 2022



- Shipper described the contents as **Synthetic Resins N.O.S.**
- Many other containers were found in the port and loaded on ships with the same description



# Port – L.A. Long Beach – March 4, 2022



# Port – L.A. Long Beach – March 4, 2022



Container of undeclared li batteries involved associated with the previous container contains laptop batteries.



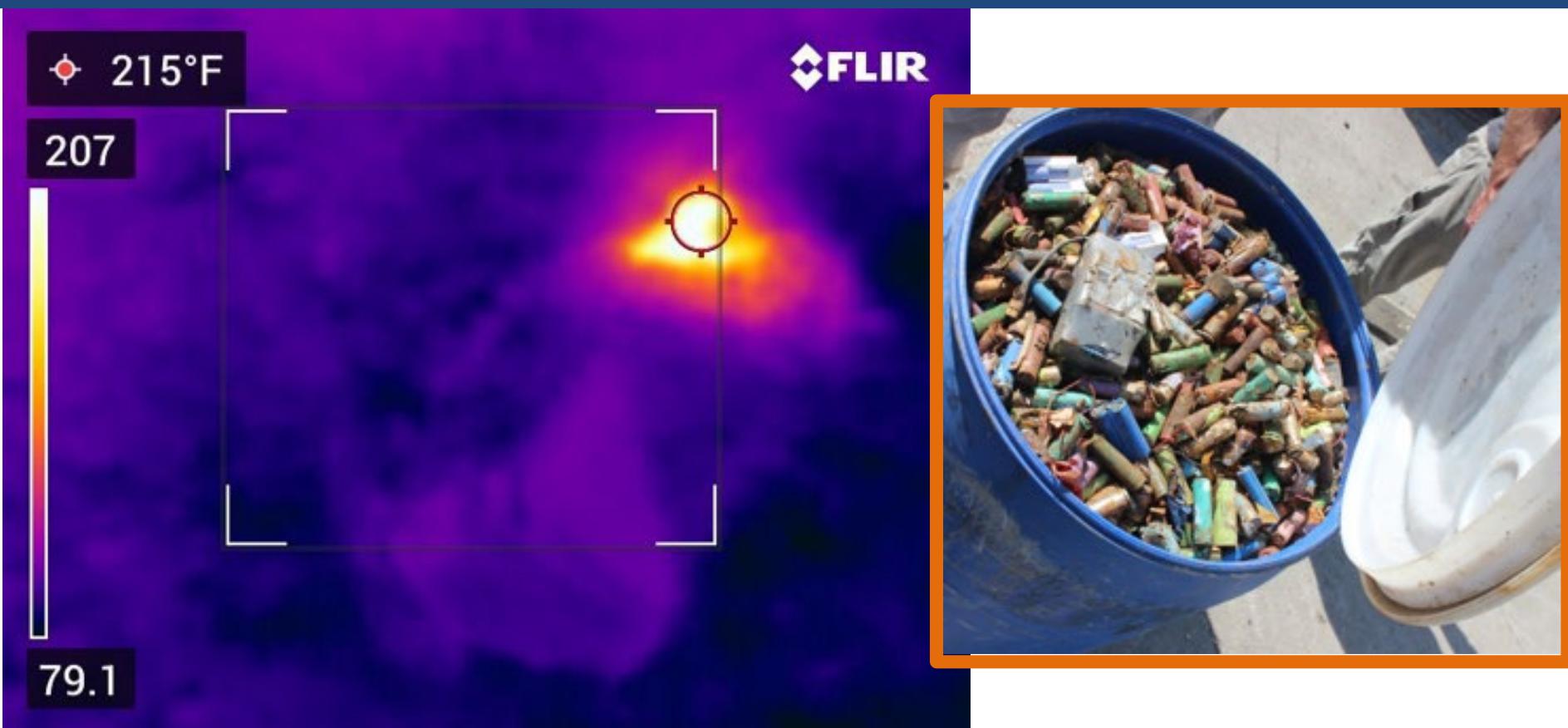
# International Import Shipment

## Madison, IL – August 10, 2022



# International Import Shipment

## Madison, IL – August 10, 2022



# Hurricanes – What now?



Hundreds of EV's and thousands of devices exposed to sea water and other forces associated with hurricanes.



Photos provided by Sanibel Fire Department.



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# Hurricanes – What now?



Photos provided by Sanibel Fire Department



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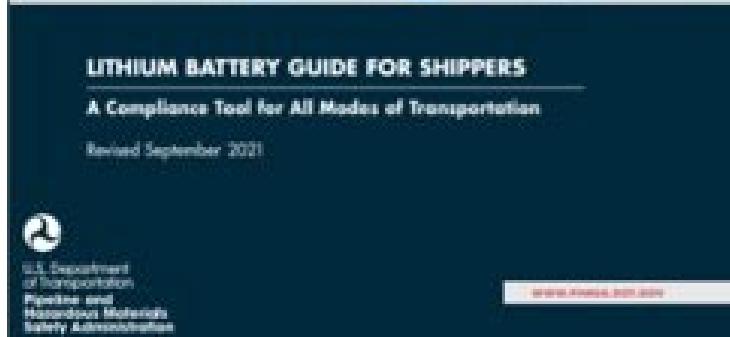


# Review

- Poor handling in use, collection and storage at end-of-life
- Poor handling and packaging methods in transportation
- Frustrated shipping is occurring because there is no way to see damage outside of clear physical evidence.
- End of life battery handling by industry is inconsistent.



# PHMSA resources . . .



- Scenario-based shipping guides based on battery type, size, and configuration
- Recorded webinar on guide use available on YouTube



PHMSA Web Link



# PHMSA Safety Advisory

## Safety Advisory Notice for the Transportation of Lithium Batteries for Disposal or Recycling

[Link to Advisory](#)



U.S. Department of Transportation  
Pipeline and Hazardous Materials Safety Administration

1200 New Jersey Avenue, SE  
Washington, DC 20590

Safety Advisory Notice for the Disposal and Recycling of  
Lithium Batteries in Commercial Transportation  
U.S. Department of Transportation  
Pipeline and Hazardous Materials Safety Administration  
Office of Hazardous Materials Safety

### Why PHMSA Wrote this Safety Advisory Notice

PHMSA wants to increase the public's overall awareness about the dangers related to shipping lithium batteries for recycling or disposal. Lithium batteries — including both lithium metal and lithium ion batteries — can cause a fire whether they are new or old.



U.S. Department of Transportation  
Pipeline and Hazardous Materials Safety Administration

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# Presenter Contact Information

## PHMSA Accident Investigation Team

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