



# Irasburg Vermont

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# 10,000-Gal LP Incident

*December 4<sup>th</sup> 2023 - December 7<sup>th</sup> 2023*

Chief Patrick McLaughlin  
Vermont State Hazmat

# December 4<sup>th</sup> 2023 – Initial Incident overview

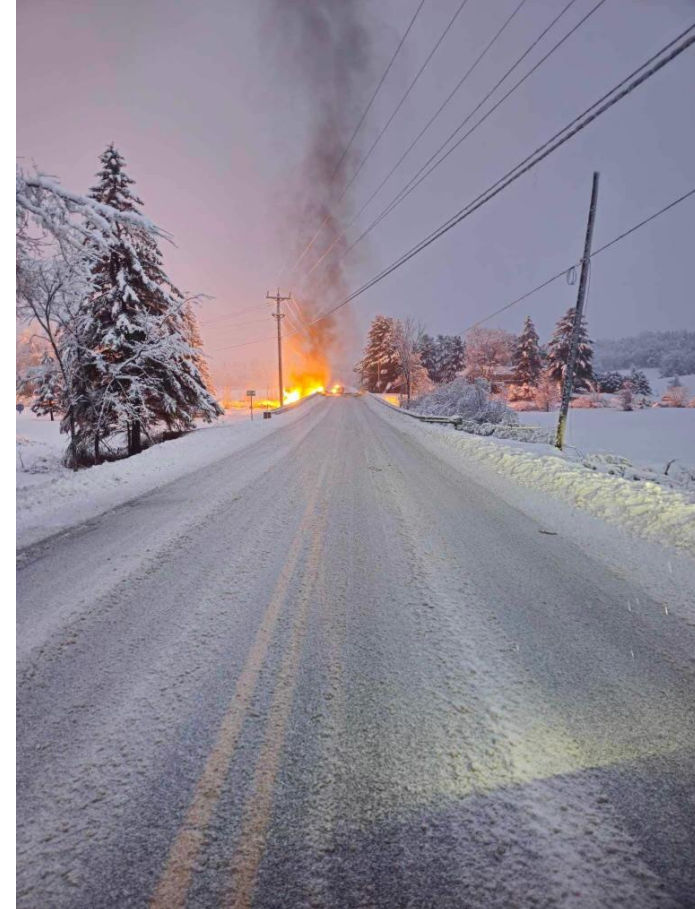
On the morning of Dec. 4<sup>th</sup> around 0700hrs Irasburg and Orleans Fire departments were dispatched to Route 14 for an LP tanker crash that was on fire.

Arriving units found the tanker on fire in the river below the bridge, with one occupant that had self-extricated.

The Driver was on the far side of the river from the arriving EMS unit. When the driver saw the Ambulance, he jumped back in the river and swam across the river again. The sole driver had minor injuries and was transported to North County Hospital.

The exact location of the leak from the tanker was unknown, the IC could also see fuel oil heading downstream. The IC initiated a 1-mile evacuation zone.

This zone comprised 10 Single Family Homes and 2 schools.



# December 4<sup>th</sup> 2023 – Incident overview



Irasburg IC requested via Radio Derby Line DECON for Booming in the village of Coventry, Orleans Emergency unit 2<sup>nd</sup> truck for stand by. VSP, DMV, State Hazmat and AOT.

For the 1<sup>st</sup> 2 hours, the primary focus was on evacuation and exclusion from the scene, and with limited personnel. The 2 schools and the residences were evacuated by 9:20 am.

# December 4<sup>th</sup> 2023 – Weather Condition and Briefs

FNUS71 KBTW 042238

FWSBTW

Spot Forecast for Irasburg LP Tank Fire...Vermont State Hazmat

National Weather Service Burlington VT

538 PM EST Mon Dec 4 2023

Forecast is based on forecast start time of 1800 EST on December 04.

If conditions become unrepresentative...contact the National Weather Service.

Please contact our office at (802) 658-0207, if you have questions or concerns with this forecast.

## .DISCUSSION...

Snow showers are expected to continue through the overnight hours before tapering off close to sunrise. Some minor accumulations up to an inch will be possible through the overnight hours. Quieter weather is in store for Tuesday with a few showers possible in the morning followed by drier weather. West to northwest winds of 5-6 mph or less are expected through the period with no wind shifts expected.

## .REST OF TONIGHT...

Sky/weather.....Mostly cloudy (75-85 percent).  
Chance of pcpn.....10 percent.  
Min temperature.....Around 9 above.  
Max humidity.....100 percent.  
Min apparent temp...11.  
Surface winds (mph).Light winds.  
Snowfall amount.....0.0 inches.

TIME (EST)	8 PM	10 PM	MIDNGT	2 AM	4 AM
Sky (%).....	90	95	89	79	65
Weather cov.....					
Weather type....	NONE	NONE	NONE	NONE	NONE
Tstm cov.....					
Chc of pcpn (%)..	10	10	10	10	10
Temp.....	17	14	13	12	11
RH.....	92	100	100	100	100
Aparnt tmp (F)..	12	14	13	12	11
Surface wind....	N 3	N 2	N 2	N 2	N 2
Surface wnd gst.	5	3	3	3	3

## .WEDNESDAY...

Sky/weather.....Mostly sunny (40-50 percent).  
Chance of pcpn.....10 percent.  
Max temperature.....Around 20.  
Min humidity.....81 percent.  
Min apparent temp...2.  
Surface winds (mph).Light winds becoming northwest 5 to 6 mph in the late morning and afternoon.  
Snowfall amount.....0.0 inches.

TIME (EST)	6 AM	8 AM	10 AM	NOON	2 PM	4 PM
Sky (%).....	63	60	54	46	37	29
Weather cov.....						
Weather type....	NONE	NONE	NONE	NONE	NONE	NONE
Tstm cov.....						
Chc of pcpn (%)..	10	0	0	0	0	0
Temp.....	11	11	15	18	20	15
RH.....	100	100	100	88	81	92
Aparnt tmp (F)..	11	5	8	10	12	6
Surface wind....	N 2	N 3	N 5	N 6	N 6	NW 6
Surface wnd gst.	5	6	6	8	8	7

# Scene Map



# Timeline for Irasburg incident - Monday Dec 4

<b>0654hrs Irasburg FD Toned out</b>	<b>0700hrs Received Text from Team Member</b>	<b>0721hrs Derby Line DECON Trailer Dispatched</b>	<b>0720hrs – 0740hrs Information collection</b>	<b>0741hrs Hazmat Team Dispatched</b>	<b>1<sup>st</sup> Hazmat unit On scene 0802hrs</b>	<b>Evacuations Completed 0920hrs</b>
<i>LP Tanker over the side of a bridge caller reporting explosions</i>	<i>Received several text message</i>	<i>Derby line was called to Boom the river in Coventry from the fuel oil leaking</i>	<i>During this 20 min we attempted to find out If hazmat was needed</i>	<i>With no contact from the scene, the decision was made to send a strike team</i>	<i>A Face to Face was conducted with IC</i>	<i>The Schools took the longest to evacuate, due to Bus needs</i>

# Timeline for Irasburg Incident - Monday Dec 4<sup>th</sup>

<b>UAS flight Of scene 09:45 hrs</b>	<b>HAZMAT Truck 4 &amp; LP Trailer on Scene 1020hrs</b>	<b>Mitigation operations 1035hrs</b>	<b>Additional Resources requested</b>	<b>USAR Sheltering Request 1421 hrs</b>	<b>Media Briefing 1500hrs</b>	<b>Public Overnight Shelter for Displaced</b>
<i>Flight on tanker shows a hole in the side of the tank – significantly lowers BLEVE hazards</i>	<i>Additional Support equipment arrived on scene</i>	<i>¼ mile of LDH was deployed With 2 engines pumping in series feeding 2 master streams</i>	<i>Fuel for trucks and Heaters Porter potty Food / Coffee Side By Side</i>	<i>Request was mad for sheltering and Logistical support</i>	<i>Media Briefing at the VSP derby Station</i>	<i>Worked with DFS, AHS, EM, &amp; Local EMD for shelter ARC set up at the town hall</i>

# Mitigation operation

## Irasburg and Orleans Fire Dept

Irasburg Fire along with Orleans Fire worked to deploy ¼ mile of LDH to supply 2 Master streams. One on the front of the tank to cool the LP the other on the bridge to prevent further damage and collapse. The goal was to cool the LP in the tank and not extinguish the fire. With the end goal of burning off all the product.



## The City of Newport and Derby Line

Newport City Fire and Derby Line worked down stream in se location to deploy Booming to collect fuel oil from the truck's fuel tanks



# Vermont State Hazmat Operations



- Remote Air Monitoring at fixed location around the site
- On-going UAS Flights for scene evaluation
- Research and collaboration with industry professionals and company representatives
- Augmented local jurisdiction with pump operators
- Monitored and evaluated mitigation operations and made adjustments when needed.
- Conducted Daily Shift Briefing
- Coordinated HAZMAT Staffing for 24hrs coverage
- Brought in additional resources and equipment
- Assisted in press releases and media inquiries
- Provided Internet and 1<sup>st</sup> net cell coverage with mini CRD

# miniCRD™ for FirstNet – Deployed for 48 hours straight



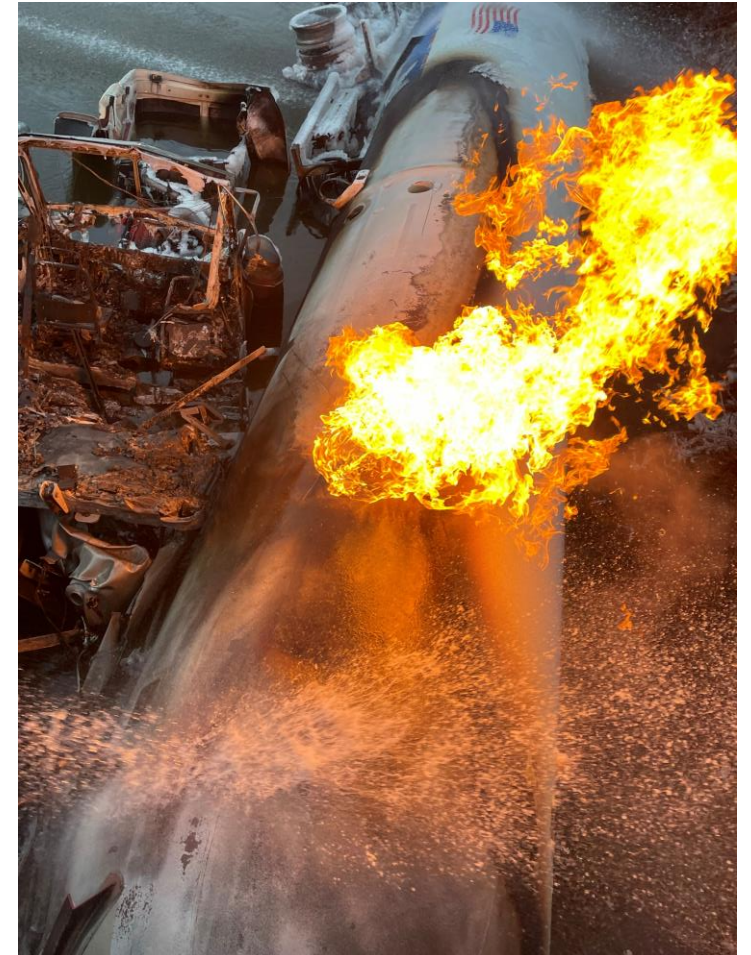
# UAS Support – Unmanned Aerial System



The use of UAS systems were invaluable for this mission. With the ability to fly over the scene and not send personnel down range until we could determine that the scene was safe for personnel.

Once it was determined that there was a hole in the tank we could implement mitigation measures.

The use of UAS also assists in periodic checks of the mitigation measures for additional personal safety.



# UAS Support – Unmanned Aerial System



# Timeline for Irasburg Incident - Tuesday Dec 4<sup>th</sup>

<b>Hazmat Shift Change 0800hrs</b>	<b>Evacuation Zone reduced to ½ mile 0800hrs</b>	<b>Continued monitoring All day</b>	<b>AOT installed barriers at the bridge</b>	<b>Master Streams moved 1100hrs</b>	<b>Hazmat Shift Change 2000hrs</b>	<b>Flame out</b>
<i>New Crew team briefing</i>	<i>The evacuation zone was reduced to ½ mile from the mile</i>	<i>Crew conducted air monitoring, and master stream work.</i>	<i>Barriers were installed at the bridge, as there was issues with traffic</i>	<i>Master streams were moved to the other side of the river to free up 2 Engine and ¼ mile of LDH</i>	<i>New Crew and Incident Briefing</i>	<i>The flame went out and crews conducted a thorough Evaluation</i>

# Bridge Evaluation – Out of Service – Impacts on Community



# Timeline for Irasburg Incident - Wednesday Dec 4<sup>th</sup>

<b>Hazmat Shift Change 0800hrs</b>	<b>Evacuation zone removed 0800hrs</b>	<b>Dive team Briefing and scene review</b>	<b>Excavator clearing scene</b>	<b>Full Safety Briefing to all on-scene - Recovery Begin 1100hrs</b>	<b>Tanker Completely Removed 1700hrs</b>	<b>Truck Completely Removed 2100hrs</b>
<i>New Crew team briefing</i>	<i>All residents were allowed back into there homes</i>	<i>Dive team on the scene, review of safety and know hazards</i>	<i>Excavator made some adjustments for recover team</i>	<i>A full Safety briefing with all parties</i>	<i>Tanker removed; Hazmat team monitored overnight for Thursday removal</i>	<i>Truck removed and towed away</i>

# Recovery Operations – Diver Operation



- Diver operation
  - Backup diver
  - Air monitoring up and downstream
  - Tanker stability
  - Recovery Crew Working with Divers
  - Education to the divers on what to connect to and what not to connect to
  - DECON of Divers from Fuel oil in the river



# Recovery Operations – Tanker Recovery

- Concerns
  - Still has an active leak from the hole in the tank
  - Potential for sparks
  - Condition of the underside of the tank was not known
  - How was the Tractor attached and could we get it separated?
- The riverbank needed dirt work to get the tank out.
- Air monitoring set up under the bridge and downstream as well as 5 roving Hazmat techs continually monitoring air.
- Addition booming Set up downriver



# Recovery Operations – Tanker Recovery



Recovery was a slow process as we still had an active leak and believed to have 800 gals liquid LP in the bottom of the tank. As the Tanker came out of the water we would stop and inspect the tanker's condition.



# Recovery Operations – Tanker Recovery



# Recovery Operations – Tanker Recovery



# Recovery Operations – Tractor Recovery



# Timeline for Irasburg Incident - Thursday Dec 4<sup>th</sup>

<b>Hazmat Shift Change 0800hrs</b>	<b>All Personal on scene 0900hrs</b>	<b>Moving tanker to Lyndonville 1000hrs</b>	<b>Rolling Roadblock I-91 South</b>	<b>Arrived at Northern Gas Lot</b>	<b>End of Incident 1340hrs</b>
<i>New Crew team briefing</i>	<i>Briefing on the days move</i>	<i>After morning traffic a convoy of DMV, VSP, &amp; State Hazmat moved the trailer to Lyndonville</i>	<i>VSP and DMV provided a rolling road block to move the tanker back to the owner lot in lyndon</i>	<i>Lyndonville Fire on scene for off loading of Tanker form lowboy</i>	

# Lessons learned



Call for assistance Early – always easier to turn units around

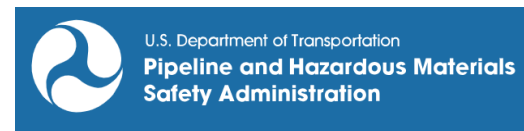


Build strong local, state and federal partnerships



Work with local businesses to understand their hazards

# Agencies Involved





# Bridge Opened to full lane Service in Late April 2024





# THANK YOU!



Patrick McLaughlin



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