

January 9-11, 2015



*An Overview
from the EOC*

By

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EXECUTIVE SUMMARY

This summary is compiled from the view of the Fire Planning section of the EOC as well as discussions held after the event. It is not intended to be an official record but one of highlights identified to preserve key features and understandings of this enormous incident.

Galesburg (Kalamazoo County Michigan) Fire Department was dispatched Friday January 9, 2015 at 9:20 AM for a multi-car accident on Eastbound I-94. Moments later, additional information was given noting that a truck was on fire. Initial arriving units found a lengthy string of accidents in all lanes of travel, to include the center median and along the shoulders in both directions of this limited access interstate. Fire was showing from an eastbound entanglement.

Exceedingly difficult driving conditions were prevalent due to blowing snow as well as slippery road surfaces. The ambient outside temperature coupled with wind chills provided dangerous conditions for exposed skin.

A total of 193 vehicles comprised this event. Sixty in the eastbound lanes and another 133 in the westbound lanes. A semi-truck tanker with 44,600 pounds of liquid formic acid had flipped onto its side. A trailer with 40,000 pounds of fireworks was also in the mix of vehicles. Due to the entanglement of so many vehicles and because of various fires involving the semi-trucks, fire crews were prevented from performing a detailed recon of the trucks and their contents.

Crew's initial actions were to make an offensive attack on the fire attempting to prevent a boiling liquid, expanding vapor explosion (BLEVE) of the tanker and ignition of the fireworks. In addition, they were performing extraction and rapid patient removal even while additional vehicles were continuing to collide into the progressive pile of destruction. This was happening simultaneously in both directions of travel (east and west). The final scene in each direction was over ½ mile thus producing a total event over one mile in length. Emergency vehicles were often unable to enter past the end of the impact zone forcing fire and EMS crews to hand carry heavy equipment through waste deep snow.

Very early in the event, Michigan State Police Lt. Dale Hinz (Paw Paw Post Commander) contacted Kalamazoo County Emergency Management Director Pat Wright with a recommendation that the Kalamazoo County Emergency Operations Center (EOC) be activated. They concurred, which then brought this author and other key command staff into the EOC for the next 19 hours.

On Wednesday 1/14/15, fifty five responders attended an after action review of this event. Chief Mark Barnes hosted this at Oshtemo Fire Station #2 with Lt. Dale Hinz of MSP moderating the event. All primary disciplines were represented and presented their findings. Highlights of those are contained within this document.

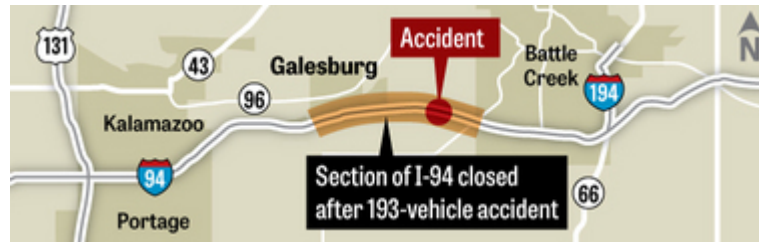
It is predicted that this incident will remain under a detailed investigation by MSP for some time which will continue to reveal new information. However, in light of needing to conclude this document, its composition was finalized on January 21, 2015.



INCIDENT PARTICULARS BY RESPONSE DISCIPLINE

LOCATION

Interstate 94 east and west bound lanes.



WEATHER

Kalamazoo County Sheriff Department Dispatch reported Northern winds at 10 mph. Temperature at time of dispatch was 15 degrees.

January 9th – 2100 Hrs. 1 degree, winds at 8.1 mph WSW. Light Snow.

January 10th – 0900 Hrs. 2 degrees, winds at 11.5 mph SSW. Light Snow.

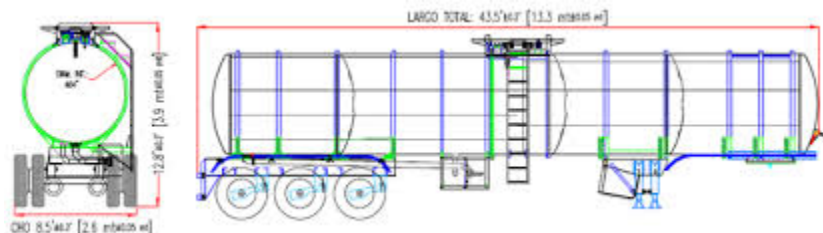
January 10th – 2100 Hrs. 5 degrees, winds at 16.1 mph S. Overcast.

FORMIC ACID

DOT 407 tanker containing 44,600 liquid pounds of 95% formic acid.

DOT Guide #153. I.D. 1779.

There was a rumored report that the substance was actually Nitric Acid. This was never verified but temporarily caused great concern.



It was initially assumed that all of the product was consumed in the fire. That was later proven to be incorrect.

Per DEQ: IDLH (Immediately dangerous to Life and Health) is 30 ppm. 3 ppm requires “action”. Exact action was not specified. Terra Environmental was the contracted cleanup agency.

Liquid: 151 pounds per 15 gallons = 10.06 pounds per gallon. 44,600 pounds = 4,433 gallons.

The formic acid tanker was laying on its side and carrying 4,430 gallons. Approximately 3,500 was pumped off during recovery. This means that about 930 gallons was either consumed or is on the ground. DEQ will have additional spill cleanup accomplished when the weather permits.

Cost: \$29 per gallon x 4,433 gallons = \$128,557 total cost of product.

In addition, there was a 250 gallon diesel fuel spill. There were others that were not immediately reported.

HAZARDOUS MATERIALS TEAM – CONSULTATION SERVICES

Kalamazoo County Hazardous Materials Team (KCHMT) was not deployed. There was both an active fire and detonating explosives in the immediate area so no spill containment was possible. However, knowledgeable team leadership was provided by PSO Mike Phelps (KDPS), Asst. Chief Stacy French (Portage Fire) and Capt. Chip Everett who rotated shifts. One of these three KCHMT leaders remained on the scene throughout the event until 2230 Hrs. Saturday – 37 hours.

Their function was to represent the public's interest as well as oversee safe practices for all workers involved. Significant setbacks occurred related to the outside temperature. The regional hazardous materials team from Battle Creek Fire responded to provide air monitoring.

A secondary exposure was a trailer containing a sand/salt mixture. There was concern that due to its proximity to the acid, that it might be contaminated. Because of that, the towing company was unwilling to take possession of this trailer. Consensus was reached to dump the sand/salt mixture at the roadside for later remediation by the waste hauler.

As for the formic acid tanker, it was emptied as much as possible. Oil dry was placed inside the tanker to absorb any residual product and to contain any possible off-gassing.

Once the empty tank trailer was removed, Sodium Bicarbonate and sand were used to neutralize and cover any product that might remain on the ground.

DEQ deployed a field supervisor to the scene for additional expertise.

FIREWORKS

A semi-truck carrying 40,000 pounds of consumer grade fireworks was immediately adjacent to the Formic Acid tank and other burning vehicles.

Trucking firm: Schneider Trucking. Shannon Schick 920-592-5048.

Cell: 920-327-1616

Hauler is Old Dominion Freight Line. They have a depot at 3600 Alvan Road, Kalamazoo.



EMS – CASUALTIES / INJURIES OF CIVILIANS



	Red	Yellow	Green	Total
Bronson, Battle Creek		7	1	8
Bronson, Kalamazoo	1	4	2	7
Borgess, Kalamazoo		3	4	7
V.A. Hospital, Battle Creek			1	1
	1	14	8	23

Per Med Comm.

Deceased semi-truck driver Mr. Jean Larocque, 57, of St.-Chrysostome, Quebec.

Fortunately, there were few other significant incidents during this endeavor except for one. Borgess Medical Center spontaneously received 28 non English speaking victims with carbon monoxide poisoning. None were of a serious medical nature but did need treatment.

EMS – CASUALTIES / INJURIES OF EMERGENCY RESPONSE PERSONNEL

1. FF. R. C. of Galesburg. Hit in back by fireworks during its detonation. Transported to Bronson Kalamazoo. Released.
2. FF. J. M. of V.A. FD. Hypertension. Transported to V.A. Released.
3. FF. T. H. of Galesburg. Respiratory inflammation. Released.
4. One tow truck driver. Minor injuries from fall while escaping detonations. Released.
5. EMS provider. Smoke inhalation. Transported and released.
6. EMS provider. Smoke inhalation. Transported and released.

EOC - STAFF

1. Kalamazoo County Emergency Mngt. Director Pat Wright. Volunteer Russ Papworth.
2. Michigan State Police: Lt. Dale Hinz (Paw Paw), D/Sgt. Kevin Conklin, D/Sgt. Shane Criger and Lt. Rick Pazder as PIO from Wayland Post.
3. Dept. of Transportation (DOT): Mike Streeter.
4. Dept. of Environmental Quality (DEQ): Mark Ducharme.
5. Fire: Mark Barnes, Oshtemo Fire and Rescue
6. Red Cross: Edward Halcomb.

VEHICLES INVOLVED – CIVILIAN



	Eastbound	Westbound	Total
Semi-trucks	26	50	76
other vehicles	34	83	117
	60	133	193

EVACUATION

1. Temporary shelter established by Red Cross at Galesburg Elementary School, 315 East Battle Creek, St. Galesburg.
2. Transportation to the shelter was provided by Kalamazoo Metro Transit, Battle Creek City Transit and the VA Hospital.
3. At the height, there were 144 citizens in the shelter plus support staff (EMS, Red Cross...).
4. Shelter Director: Adam Castle of Red Cross, 366-6292

POLICE AGENCIES



1. Michigan State Police – local patrol.
2. Kalamazoo County Sheriff's Office
3. Kalamazoo Department of Public Safety (1).
4. Squads of State Police Troopers were mobilized from the Paw Paw, Niles, Coldwater and Wayland Posts to assist with the policing of the incident which lasted from the time of the crash (9:20 AM Friday) until the eastbound lanes were reopened at 4:30 AM Sunday.

Note: Division of labor was made clear early. Sheriff Department handled routing of traffic which allowed MSP to focus on stabilizing, clearing and investigating the actual accident.

FIRE AGENCIES



1. Galesburg-Charleston
2. Comstock
3. Richland
4. Kalamazoo City
5. Pavilion
6. Leroy
7. Oshtemo
8. Battle Creek
9. Marshall
10. Veteran's Administration

Various fire crews remained on the scene from Friday 0930 until Saturday at 2230 hours – 37 hours.

EMS – FIELD EMS PROVIDERS

1. Pride Care
2. Life EMS
3. Life Care EMS
4. Battle Creek VA EMS
5. Kalamazoo County Medical Control
6. West Michigan Aircare
7. Western Michigan School of Medicine



OTHERS

1. Kalamazoo County Medical Examiner.

AMERICAN RED CROSS



The American Red Cross opened a reception center at the Galesburg Elementary School. They employed 26 volunteers totaling 312 staff hours. Their mission provided 350 snacks, 275 meals, 450 drinks, 25 comfort kits and 15 blankets.

LESSONS LEARNED OR REAFFIRMED

1. **Unified Field Command**: Early activation and arrival of the mobile command post is important to facilitate the establishment of a unified command. (MiOSHA Part-74, 408.17451)
 - a. The arrival of this physical location is easily identifiable by on-scene personnel which then brings field commanders of key disciplines together (police, fire, EMS...).
 - b. Unified Command supports coordinated efforts which increases efficiencies making limited resources more effective and conversely reduces duplication and subsequent waste. i.e. police cleared ancillary paths to the event so that responding fire and EMS units could gain entry.
2. **Accountability**: This event covered a large geographical area. Establishing an effective accountability system for **ALL** emergency responders is difficult but important. (MiOSHA Part-74, 408.17451)
3. **EOC**: Thankful that the EOC was activated early in the event.
 - a. The sooner the EOC is established the more support they can provide. A late EOC will take an extended time to get a grasp on the event.
 - b. Have your EOC plans up to date. Members must be committed to the good of the whole. Top level decision makers tend to see the big picture and encourage support of other responders.
4. **Emergency Routes**: Department of Transportation (MDOT) has pre-determined emergency routes adjacent to most highways. If altering from those designed routes is necessary,

signage will not be present. Therefore, more traffic control devices (police, signage...) will be necessary.

5. **Sheltering - Transportation:** Rapid sheltering of victims was key during this specific severe weather. Although always a consideration, it might not be as critical other times of the year.
 - a. Metro buses are typically available 24/7 and quick to deploy. School busses have a very limited time that they are staffed. On this day, there was no school so their deployment would have been exceedingly long. Metro busses used were from:
 - i. Kalamazoo Metro
 - ii. Battle Creek Metro
 - iii. Veterans Administration Hospital (large van).
 - b. Recognized that local citizens (Galesburg Community) self-deployed to assist Red Cross's efforts at the shelter. That was much appreciated.
6. **Sheltering – EMS:** There were an additional 12 patients evaluated at the shelter. Three (3) were transported. Insure that EMS is assigned to shelter sites.
7. **Environmental:** Department of Environmental Quality (DEQ) has expertise in hazardous materials and can be highly valuable in understanding evacuation zones as well as worker protection practices. They also have authority to immediately hire containment and cleanup companies in the interest of public safety.
8. **PIO:** Public Information Officers (PIO) continues to be important.
 - a. Concise, consistent and reliable information to our public helps to insure they respond appropriately. This also helps to avoid unnecessary panic. This will aid recovery and provide less criticism to deal with after the event.
 - b. Although having a PIO at the EOC makes sense, the news media is reluctant to leave the scene and therefore may not attend the EOC briefings. It helps to schedule and post those planned times. However, strongly consider assigning a PIO to the scene that reports to the EOC.

AFTER ACTION CONSIDERATIONS

1. Terra Environmental was unprepared to perform air monitoring for the acid which is an expected function of a cleanup agency.
2. Difficulty in alerting regional hazardous materials team from Battle Creek fire.
3. Radio (800 MHz) frequency assignment overlap. EMS and MSP. Both agencies started on G event 9. MSP requested additional event channels which later moved EMS to G event-10.
4. At one time, EOC was told the hazardous materials substance was "Nitric Acid" in totes. It was believed that this too had been consumed by the fire.
5. Assign a PIO at the scene. That is where the media will congregate.
6. Emergency response agencies in Kalamazoo County need to find a better way of housing and/or deploying EM-50 (mobile command post) and EMS-3 (responder rehabilitation bus) that will support faster on-scene arrival.
7. Should work to identify area(s) where hazardous cargos could be temporarily stored to allow highway opening.

End of document.