

Husky Superior Refinery Fire

Husky Superior Refinery
Stinson Avenue, Superior, Wisconsin
April 26 - 27, 2018

Summary of Findings/Improvement Plan

Report Date
August 9, 2018

After Action Review Meeting Held On
May 29, 2018

Prepared By:

Douglas County Emergency Management
with assistance from:
University of Wisconsin – Extension, Douglas County

Working Draft – Submitted to Douglas County Corporation Counsel on 8/22/18

Incident Overview

Incident Name:

Husky Superior Refinery Fire

Incident Time/Date/Location:

On Thursday, April 26th at 10:00AM an industrial fire occurred at the Husky Superior Refinery. The initial fire was nearly extinguished, when the fire spread to a ruptured asphalt tank at 12:15 PM.

Incident Timeline:**APRIL 26, 2018****10:00 AM**

- Explosion Reported at Husky Refinery by Husky Security.

10:50 AM

- Douglas County EOC is open

11:30 AM

- Husky Joint Information Center established and working on news release.
- 5-6 injuries reported/no fatalities
- No need for sheltering or Evacuation

12:15 PM

- Fire Has Re-ignited and crews perform suppression efforts.

12:27 PM

- Mental Health resources have been identified

12:30 PM

- Command has evacuated scene/moved to Enbridge.

12:43 PM

- Evacuation notice from Command: Evacuate 10 miles South x 6 miles of refinery. (6 miles broken down into 3 miles East and West of Refinery). Also evacuate 1-mile radius of refinery. Info put on County Web Page.

1:07 PM

- Mustering point established at Four Corners Elementary School

1:29 PM

- EPA/OSHA notified and en route. Evacuation zone confusion noted.

1:55 PM

- Second mustering point established at UWS Superior Union Hall

2:05 PM

- Public Works and Law Enforcement discuss Evacuation Planning
- Public being directed to Douglas County Website for further information
- DTA is on standby for bussing.
- Original Evacuation zone still stands

2:30 PM

- Communications established between both evacuation centers and EOC via ARES/RACES
- DTA staging at 1101 Susquehanna and 1316 N 14th

2:45 PM

- WDOT and others staging at US 2 Scale and coordinating message boards/signing.
- Public Health has been in contact with local nursing homes

3:15 PM

- NWS arrives at EOC for weather predictions/support.
- DECC identified as mustering point-St Louis County staffing that

4:30 PM

- Information line activated 715-395-1231 and put onto County Website

5:00 PM

- EOC moving to room 270. Command to operate out of Basement Gov. Center.

6:15 PM

- Second information line established 715-395-1497 and put onto county website

6:45 PM

- Press Conference: Fire has been extinguished.

7:15 PM

- Evacuation order stay in place until situation stabilized. Objectives to focus on the safety of the public and responders.
- Environmental concerns continue. EPA air monitoring for smoke plume.
- Governor Arrives briefing takes place.
- Husky establishes emergency hotline number 403-512-8813 and put to county webpage

8:30 PM

- EOC briefing-Still fire at refinery although its small and contained the evacuation order will stay in place until al fire extinguished and situation stable.

9:20 PM

- Last media briefing of the day. Still fire at refinery although its small and contained the evacuation order will stay in place until al fire extinguished and situation stable. Shelter Update: Four Corners (1person), DECC (41 people, 4 cats, 4 dogs).

10:25 PM

- EOC Briefing: Hot spots identified and ERT working on those. Air monitoring continues.
- Booming for impacted water ways discussed
- Evacuation order in place until 6am. (Command will make final joint decision in AM).

11:15 PM

- SWLP arrives at EOC to discuss power/water issues

APRIL 27, 2018**12:05 AM**

- EOC Briefing-From Facility, inspections look good, they continue to examine. Minimal impact (near HF?) due to water curtain in that area. Continue to look at tank farm, all looks ok. If situation remains stable should be able to lift evac notice by 6am. Air Monitoring continues.

12:27 AM

- Husky staff, EPA, Red Cross, DGEM, SFD, SPD, ARES/RACES in EOC

2:00 AM

- Command/EOC briefing-Safety top priority (responders/public).
- Tank 101 some hot spots yet.
- Air Monitoring continues
- Water curtain taken off HF tank-no issues upon inspection

2:30 AM

- Weather update provided from NWS

4:00 AM

- Ramping down on Husky ERT members and Superior Fire member's onsite.
- EPA plans to have readings back by 6 am for decision on lifting evacuation.

6:45 AM

- EPA has monitoring results, no hazards noted and Incident Command has lifted the evacuation order and residents can return to homes/businesses. Items noted on Douglas County Webpage.
- Traffic around Stinson/Hill Ave will be restricted.

9:04 AM

- Red Cross coordinating lunch for EOC/responders. Husky to coordinate meals from here out.

9:40 AM

- EOC Briefing: Priorities continue to be Public Safety/Responder Safety. Assessments within the refinery continue.
- Health Staff reported to DECC to answer related questions/mental health needs
- Baywest is doing Decon
- Air monitoring continues/water sampling begins.

10:41 AM

- Press Conference:
- DNR on scene working with EPA on air quality/environmental concerns
- No danger to public at this time

1:00 PM

- EOC briefing:
- Situation is much improved-weather is favorable.
- Gold Cross, Duluth Fire, Superior Fire, Williams Fire have been released. ERT manning the situation.
- Contractors/employees being allowed onsite to collect personal belongings
- Air monitoring continues, water sampling done

3:00 Update from Incident Commander:

- Husky staff will be moving and operating EOC out of Enbridge building.
- Command will operate out of the Husky Maintenance building
- Investigations continue
- One husky employee is still hospitalized, some employees requesting to be medically assessed.
- More boom being placed near newton creek

4:30

- Douglas County EOC is closed. Command and husky staff moving to Enbridge by Mariner Mall.

Incident Hazard or Threat:

Industrial fire at the Husky Superior Refinery located at 2407 Stinson Avenue in the City of Superior. The response to this industrial incident was a multi-jurisdictional response.

Incident Summary:

An industrial fire occurred at Husky Superior Refinery. This fire required assistance from multiple jurisdictions to extinguish, mobilized the Incident Command System and Douglas County Emergency Management. The event required an evacuation of a portion of the City of Superior, a 1-mile radius evacuation zone was established and extending south 10-miles (and 3-miles east and west of south evacuation line). The evacuation order was lifted the morning of Friday, April 27, 2018. This after-action process examined emergency services and emergency management response to this incident, and community partners that include schools, medical services, and others.

This after-action report does not examine events that led up to this fire, root causes, or other issues related to the operation of the impacted business. Discussion during the after-action review meeting held on May 29th focused on the following three questions:

1. What was expected to happen?
2. What actually happened?
3. What went well and why?
4. What can be improved and how?

Analysis of Exercise Core Capability Performance

Aligning exercise objectives and core capabilities provides a consistent taxonomy for evaluation that transcends individual exercises to support preparedness reporting and trend analysis. Table 1 includes the exercise core capabilities with associated overall performance ratings (P, S, M, or U) as evaluated in the exercise.

Table 1-Summary of Core Capability Performance

#	Core Capability Performance	Performed without Challenges (P)	Performed with Some Challenges (S)	Performed with Major Challenges (M)	Unable to be Performed (U)
1	Operational Communications				
2	Operational Coordination				
3	Public Information Warning				
4	Public Health & Medical Services				
5	Environmental Response / Health & Safety				
6	Public & Private Services and Resources				
Rating Definitions					
Performed without Challenges (P)					
Objectives were effectively performed and conducted in accordance with applicable plans, procedures and laws.					
Performed with Some Challenges (S)					

Objectives were achieved and conducted in accordance with applicable plans, procedures and laws. However, opportunities to enhance effectiveness and/or efficiency were identified.

Performed with Major Challenges (M)

Objectives were achieved, but some or all of the following were observed: demonstrated performance had a negative impact on the performance of other objectives; contributed to health/safety risks for public or response workers; and/or was not conducted in accordance with applicable plans, procedures and laws.

Unable to be Performed (U)

Objectives were not able to be achieved or the objectives were not tested to exercise time constraints or safety considerations/decisions.

Core Capability 1- Operational Communications

Description- Establish and maintain communications essential to support response to a major event.

Analysis or Key Observations:

- Services from both Wisconsin and Minnesota were involved.
- Cross border communication could improve. Outlying areas (Cloquet, Iron River, etc.) didn't have dual-band radios used by Superior and Duluth.
- 9-1-1 one-way pager in St. Luke's Emergency Room was only connected to St. Louis County, MN.
- LifeLink could not initially establish air-to-ground communication. Superior Fire Channel 3 was given as a point-of-contact but did not exist. Visual landing at incident command was possible.
- Prior to this event, Douglas County began working with St. Louis County on dual-band radios and cross-talk between WisCOM and Armor. Technological barriers still exist between Wisconsin and Minnesota agencies and different technologies.
- Some confusion over evacuation zones.

Strength Area(s):

- National Weather Service updates every 15-minutes
- Superior Schools received timely communication and advice for operations or to cease operations.
- Good response from St. Louis County.
- Minnesota Public Health had fast response to shelter planning and long term care.
- Husky Energy added capacity to response throughout the day to meet needs.
- Gold Cross ambulance communications worked with event and helped to close communications gaps with St. Luke's.

Improvement Area(s):

- Address interoperability of communications systems across all potential responding jurisdictions and service providers.
- Establish a medical helicopter safe landing site.
- Improve communication between 9-1-1 communication center and air medical.
- View multi-jurisdictional events in Superior and/or Duluth as “one event” where requests for mutual aid trigger automatic activation and EOC representatives are sent to each EOC. Implement web based EOC.
- Provide clear and consistent information on evacuation zones.

Core Capability 2-Operational Coordination

Description- Discuss ability of agencies to direct, coordinate, and control emergency response activities using Incident Command System.

Analysis or Key Observations:

- Gold Cross and Superior Fire coordination worked very well; they work together every day. Minor communication issues included the lack of knowledge for resources that are available from other agencies.
- 11 patients evacuated from Superior Essentia Health within one hour due to Gold Cross efficiency.
- Cellphone coverage remained stable with no loss through the day.
- Husky Energy was readily available with people to assign tasks to.
- St. Luke’s Hospital had no direct point of contact for hospital to get reliable, updated information.
- Temporary command center was at Enbridge; operations were consolidated later that afternoon. The scene had calmed so although moving was disruptive, it deemed positive to compile all efforts.
- Social media misinterpreted the evacuation zone and led citizens and businesses to evacuate that may not have necessarily been in the evacuation zone; the Enbridge facility, where incident command was located, was beyond the one-mile radius of the evacuation zone.
- There were concerns about Lifelink staging at the Bong Airport due to the potential air quality and being in the evacuation area.
- UW-Superior located directly in Emergency Operations Center; recommended School District to do the same.
- The evacuation zone was deemed confusing by many agencies. Nothing north of 28th street needed to be evacuated; the actual evacuation zone was a one-mile radius around the refinery, 10 miles south and three miles east and west of the south evacuation line.
- Automatic activation/liaison would assist with border communication errors.

Strength Area(s):

- Gold Cross and Superior Fire coordination worked very well; they work together every day.
- A lot of organization done by Husky which assisted in collaboration with Fire Department and Police Department; planning, safety, logistics, operations were already set up and ready to go. Due to the nature of event (timing, location, breadth, etc.) pre-planning for each potential variable is difficult, but regular and routine practice between organizations proved beneficial.
- Hospital evacuation was well coordinated.
- It was advantageous for Emergency Operations Center and Incident Command to be separated; each could focus on the tasks at hand without confusion.
- Ensure open channels of communications to hospitals and all relevant partners, consider bringing additional partner representatives to the Emergency Operations Center (EOC).
- [Identify those areas that were strengths.
- The National Weather Service was a large asset; spot weather forecasts given every 15 minutes. The evacuation zone was kept wide enough in case the wind switched; Lifelink also monitored wind changes throughout event. Duluth/St. Louis County Emergency Operations had a weather representative; wind switch was tracked.
- Many off-duty personnel with multiple agencies were paged to assist and showed up immediately.
- Public Health worked well with coordination between hospitals and shelter planning; the shelters were transformed to make accommodations quickly.

Improvement Area(s):

- Build awareness of resources that can be provided by agencies through tabletop exercises and other emergency planning exercises.
- Look at infrastructure at EOC to support operations for an event. One reason operations were consolidated later in the day concerned available parking to support EOC and media.
- Assigned Public Information Officers may have a role in the future working to address incorrect information spreading through social media.
- Border county and state communication in emergency events (liaison or video conference) needs more training; and address any potential incompatibilities.
- Invite Superior Public Schools to send a representative to EOC, when EOC is activated and could impact school operations.
- Public Information Officer(s) and spokes people to provide unified voice, especially for issues like evacuation zones.
- Automatically activate liaisons across jurisdictions to respective EOC's.

Core Capability 3-Public Information and Warning

Description- ensure timely, accurate, internal and external communication throughout response
-identify internal/external communications needs,
-evaluate information sharing during/after event.

Analysis or Key Observations:

- There were many Public Information Officers publishing different messages; one PIO would've made for more accurate information. Once Incident Command and Emergency Operations merged, there was never a transition to a unified command.
- Superior Police Department was concerned about coordination of evacuation zone.
- Questions about the reasons for the evacuation? Was it smoke, fumes, what could happen?
- Conflicting messages about when the evacuation order would be lifted, resulted in some returning (or attempting to return) home before they were supposed to.
- Mixed messages were given from press conferences with what information was relayed via other avenues such as the Douglas County website.
- When information was released via press conferences, press releases were supposed to be made available in print with a phone number to call with questions. That information should've then been made available to incident command and EOC; it wasn't done.
- EOC and IC needs an organizational chart for roles and responsibilities.
- Duluth issued shelter in place warning later that day, in an attempt to protect citizens in case of potential hazards. St. Louis County internal issues were discovered and fixed throughout process.

Strength Area(s):

- Four Corners Elementary and Yellowjacket Union were official mustering points at the beginning of the evacuation; Health and Human Services staff was located at points to assist. People were sent to the mustering points before a shelter was opened.
- When information was released via press conferences, press releases were supposed to be made available in print with a phone number to call with questions. That information should've then been made available to incident command and EOC; it wasn't done.
- School District was pleased with communication and received timely updates to disperse information through school messaging system.
- 9-1-1 dispatch center and National Weather Service issued a mass notification for the initial evacuation.
- Emergency Alert System functioned well.

Improvement Area(s):

- Clarify EOC and IC roles and responsibilities, PIO to publish.
- Public Information Officer(s) (PIO) develop written press releases for all information released by spokesperson (people) during press conferences and include contact information for follow-up.

- Align information (e.g., evacuation information) with Incident Command, spokesperson(s), and public information officer.
- Consult all relevant partner / responding agencies when making decisions, such as establishing evacuation zones.
- Train and develop public information officer(s) to staff future Emergency Operations Centers.

Core Capability 4-Public Health & Medical Services

Description- Determine the ability to provide appropriate safe care during event (sheltering).

- Ensure Responder safety and health (including mental health) throughout the event/after the event,
- Ensure community health needs are met before/after event.

Analysis or Key Observations:

- Public Health staff has and will continue to monitor the incident (termination date or standard for termination of monitoring not indicated).
- Health Department first learned of event and scope of event from agency employees that have children at Superior Public Schools.
- Long term care facilities were looking at policies and how an evacuation decision would be made. Much training in sheltering has been done; employees were sent to mustering points and then to shelters with training experience.
- Potential exposures were questioned. Gold Cross was in contact with Husky Energy and had supplies needed to treat potential exposures. Husky, state health department, Environmental Protection Agency and Department of Natural Resources were and still are in good communication with air quality reports.
- A potential mass evacuation may need to be addressed and/or reviewed; to consider where to relocate should the majority of Superior and Duluth residents need to evacuate.
- Home care patients were calling hospitals trying to decide where to go – they were sent to DECC. If patients wind up in shelter, a medical area would be set up for treatment.
- Long term and assisted living individuals have a difficult evacuation process due to mobility issues. It was recommended to communicate with these homes on a continuous basis and involve them in the evacuation process.
- Concerns about transportation for evacuations. Duluth Transit and schools have finite transportation resources, and some of those resources were being used to evacuate schools. Do evacuation plans for facilities such as long-term care, schools, and other residential facilities account for limited resources?

Strength Area(s):

- Health Department's Preparedness Coalition activated their statewide web WebEx meeting platform to bring experts to the event remotely.
- Several volunteers, mostly from iron range, came down and staffed the DECC shelter throughout the night. The St. Louis County pet shelter trailer was used for the first time. Cooperation was shown across the borders.
- There was a large outpouring of donations. Wal-Mart closed due to the evacuation, but anything that was needed, was given. Many other businesses contributed by providing various food and supplies.
- 11 ambulances were on scene just from Duluth. Cloquet, Bayfield, Iron River, Gordon/Wascott, Moose Lake, Lake County, Barron County and St. Cloud ambulances were also all available (21 ambulances).

Improvement Area(s):

- Notify Public Health earlier when an event poses a potential public health threat, rather than waiting for the incident command structure to be activated.
- Survey long-term care facilities to determine if they have up-to-date emergency and evacuation plans, and if they need technical assistance to update these plans.
- Improve communication to those impacted by future evacuation zones, including: evacuation shelters that are capable of providing medical assistance, and evacuation shelter for pets.
- Encourage agencies with evacuation and emergency plans to ensure adequate and realistic transportation plans are in place.

Core Capability 5-Environmental Response / Health and Safety

Description- Determine appropriate environmental response during/after event.

Analysis or Key Observations:

- Air monitoring/fact sheets are continually being published to citizens. Environmental Health staff talked with businesses in plume area about soot and air filters; there were no issues.
- Questions about what environmental monitoring was being done during the event.

Strength Area(s):

- Wisconsin Department of Public Health responded with fact sheets to address questions and concerns from the public.
- Public Health visited and/or communicated with licensed businesses in the plume area to provide guidance for cleaning and other health questions.

Improvement Area(s):

- None identified at this session.

Core Capability 6-Public & Private Services and Resources

Description- Public and Private resources utilized in event (DTA bussing, Husky Emergency Response Team/Husky staff, Shelter sites-UWS and Superior School District, local Hospitals, Life-Link Helicopters, Gold Cross Ambulance, ...etc.).

Analysis or Key Observations:

- What happens if this event had impacted Duluth as well (e.g., a wind shift)? How would that have impacted evacuation centers?

Strength Area(s):

- The fire was completely put out with local resources; a lot of team work from multiple agencies was involved. Additional outside resources would've been available, if needed.
- The Duluth Transit Authority was extremely helpful with extra staffing to assist in evacuation and in transporting special care facility residents.
- The School District and AMSOIL as well as UW-Superior and St. Scholastica partnerships were made the day of the fire to assist with the evacuation. Relationships built over time with all local agencies helped in the emergency situation.
- Lakehead Constructors opened their property for operations command and staging.
- A multitude of local agencies that assisted in the emergency was created by Douglas County Emergency Management and is available if requested.
- Incident command centers were set up at hospitals, with trauma rooms and surgeons available within 10 minutes. The Burn Plan was activated in Minnesota, available down to cities.

Improvement Area(s):

- Opportunity to work with community to align use of transportation resources to support future evacuations. There are finite resources, and there are concerns that individual plans might call for using resources not available – depending on the size and scope of an event. What order of prioritization should exist for transportation resources to support an evacuation.

Additional comments captured:

- A Douglas County proclamation was made to thank all agencies.
- One Public Information Officer would have alleviated a lot of the communication issues that occurred. One person who is abreast of all information to provide to all other agencies and the public would prove beneficial for a consistent line of communication.
- Incident command had a lot being thrown at them and dealing with many things; difficult to get information out.
- Citizens and media should be directed where to look for reliable information rather than try to cover all social media.
- Husky Emergency Management has been very busy with its internal review.
- Overall coordination is important, so individuals aren't freelancing.

Appendix A-Improvement Plan (IP)

This IP has been developed for Douglas County Emergency Management for the Husky Superior Refinery Fire Response conducted on April 26 and 27, 2018

Core Capability	POETE Planning Organization Equipment Training Exercising	Improvement Action	Action POC Identify who has responsibility to complete corrective action	Start-End Date
Operational Communications		Address interoperability of communications systems across all potential responding jurisdictions and service providers.		
		Determine appropriate conditions and siting for emergency medical helicopters.		
		Improve communication between 9-1-1 communication center and air medical		
		View multi-jurisdictional events in Superior and/or Duluth as “one event” where requests for mutual aid trigger automatic activation and EOC representatives are sent to each EOC. Implement web based EOC.		
Operational Coordination		Build awareness of resources that can be provided by agencies through tabletop exercises and other emergency planning exercises.		
		Look at infrastructure at EOC to support operations for an event. One reasons operations were consolidated later in the day concerned available parking to support EOC and media.		
		Determine social media strategy and role of PIO to counter incorrect information.		
		Border county and state communication in emergency events (liaison or video conference) needs more training; and address any potential incompatibilities.		
		Review liaisons invited to an Emergency Operations Center and identify if any partners are missing (e.g., Superior Public Schools).		
		Public Information Officer(s) and spokes people to provide unified voice, especially for issues like evacuation zones.		
		Automatically activate liaisons across jurisdictions to respective EOC’s.		
Public Information Warning		Clarify EOC and IC roles and responsibilities, PIO to publish.		
		Public Information Officer(s) (PIO) develop written press releases for all information		

Core Capability	POETE Planning Organization Equipment Training Exercising	Improvement Action	Action POC Identify who has responsibility to complete corrective action	Start-End Date
		released by spokesperson (people) during press conferences and include contact information for follow-up.		
		Align information (e.g., evacuation information) with Incident Command, spokesperson(s), and public information officer.		
		Consult all relevant partner / responding agencies when making decisions, such as establishing evacuation zones.		
		Train and develop public information officer(s) to staff future Emergency Operations Centers.		
Public Health and Medical Services		Notify Public Health earlier when an event poses a potential public health threat, rather than waiting for the incident command structure to be activated.		
		Survey long-term care facilities to determine if they have up-to-date emergency and evacuation plans, and if they need technical assistance to update these plans.		
		Improve communication to those impacted by future evacuation zones, including: evacuation shelters that are capable of providing medical assistance, and evacuation shelter for pets.		
		Encourage agencies with evacuation and emergency plans to ensure adequate and realistic transportation plans are in place.		

Core Capability	POETE Planning Organization Equipment Training Exercising	Improvement Action	Action POC Identify who has responsibility to complete corrective action	Start-End Date
Environmental Response / Health & Safety		None Identified		
Public & Private Services and Resources		Opportunity to work with community to align use of transportation resources to support future evacuations. There are finite resources, and there are concerns that individual plans might call for using resources not available – depending on the size and scope of an event. What order of prioritization should exist for transportation resources to support an evacuation.		

Agencies in Attendance

Name:	Organization
Eric Adams	American Red Cross
Tony Guerra	American Red Cross
Adam Shadiow	Arrowhead EMS
Rani Gill	City of Superior
Todd Janigo	City of Superior
Kathy Ronchi	Department of Health and Human Services
Pat Schanen	Department of Health and Human Services
Ann Doucette	Douglas County
Kaci Lundgren	Douglas County
Keith Kesler	Douglas County Emergency Management
Dave Sletten	Douglas County Emergency Management
Mark Liebaert	Douglas County, Chair
Shawn Krizaj	Duluth Fire Department
Melinda Wittmer	Duluth Fire Department
Rod Fournier	Duluth Transit
Anders Hultstrom	Gold Cross
Greg Hanson	Gold Cross
Elizabeth Heizler	Gold Cross
Kollin Schade	Husky Energy
John O'Brien	Husky Energy
Paul Harris	Husky Energy
Joseph Hennessy	Life Line III
Dewey Johnson	St. Louis Co.
Mike Marturano	St. Luke's
Marissa Berger	St. Luke's
Chuck Wessberch	St. Mary's
Scott Gordon	Superior Fire
Steve Edwards	Superior Fire
Howard Huber	Superior Fire Department
Steve Panger	Superior Fire Department
Matt Markon	Superior Police Department
Marc Letendre	Superior Police Department
Peter Erickson	Superior Police Department
John Kiel	Superior Police Department
Tom Champaign	Superior Police Department
Nicholas Alexander	Superior Police Department
Chad Jensema	Superior Schools

Alayna Burger	Superior Schools
Janna Stevens	Superior Schools
Gary Niemi	Superior Schools
Gary Gulbrandson	UW-Superior
Harvey Anderson	UW-Superior
Gigi Koenig	UW-Superior
Randy Books	WEM