



Tanker separates on I-35W at I-694

by Trevor Hamdorf, Deputy Fire Chief - New Brighton Department of Public Safety

On Thursday, April 7, 2011 the New Brighton Department of Public Safety did not make the CNN morning news. At 5:26 am, the New Brighton Department of Public Safety was dispatched to southbound I-35W at I-694, the second busiest intersection in the State, on a reported tanker on fire. Through partnerships and training, Fire Division and Police Division crews responded to and successfully mitigated the incident and prevented it from becoming a national event.

INITIAL DISPATCH

At 5:26 am, the New Brighton Department of Public Safety was notified of a tanker fire on I-35W. Crews began responding to the area while soliciting additional information from the Ramsey County Emergency Communication Center (RCECC) dispatchers. The initial responding Chief requested the RCECC dispatchers look at the Traffic Management Center camera feed to provide additional information. The dispatcher determined that the fire was actually on I-694 over I-35W, altering response routes and compounding the problem by placing a burning tanker on one interstate over another interstate.

Fortunately, a Traffic Management Center camera had been positioned to videotape the incident in its entirety. Based upon this footage, it was later determined that the tanker separated from the tractor while entering the highway. It was burning for approximately four minutes in the middle of the interstate at the beginning of rush-hour traffic prior to anyone calling 911.

SIZE-UP

The initial arriving New Brighton Chief established I-694 Command and conducted a size up. The Incident Commander observed a MC406 trailer placarded with UN1203 (Gasoline) separated from the tractor with a working gasoline fed fire under the belly of the trailer in the area of the landing gear. Several years prior, the New Brighton Fire Division partnered with a local fuel transporter and had train-



ing on elements of a MC406 trailer. Additionally, there was a responder education campaign about "wet lines" on MC406 trailers and the resulting fuel spills associated with damage to them. The "wet lines" are essentially the pipes under the tanker trailer which move the product from the containment vessel to its final destination and remain filled with product. There are clapper valves contained within the container that are designed to close when the "wet lines" are damaged preventing additional fuel loss. Based upon this information, there were two potential causes of the fuel fed gasoline fire, either the landing gear breached the container when the trailer slammed down on the highway or the fuel was a result of the "wet lines" losing their product. Based upon the size-up we were unable to determine what the cause of the fuel leak supplying the fire was.

INITIAL ATTACK

The first Engine arrived on scene approximately 1 minute after the Incident Commander. Based upon the location of the fire, the lack of full involvement of the trailer, the position of the event, the incident commander made the decision that this was a "win-

nable" incident and the benefits associated with attempting to suppress or contain the fire outweighed the risks associated with these actions.

The Incident Commander directed the first arriving apparatus to stretch a 200' 1" attack line and begin cooling the tank. The apparatus operator was also directed to increase the Class A Foam concentration to 1% with the intention of utilizing the first attack apparatus to contain the fire and utilize the second arriving apparatus to establish a Class B Foam operation which would take significantly more time, but extinguish the fire. The line was stretched and charged and the crew made their initial attack to the top of the tanker and was redirected to attack the location of the fire.

The second apparatus arrived on scene and their crews stretched a 200' 1 3/4" attack line from the second apparatus and began the process of placing an in-line foam eductor the proper distance from the nozzle, changing to an adjustable flow nozzle, and gathering Class B foam pails from each apparatus to ensure an adequate supply of foam concentrate.

The Incident Commander contacted the initial fire attack crew for a status

report to determine the need for additional resources while the second apparatus arrived on scene. The Company officer replied, "stand-by", and following 10 seconds that seemed to last an eternity, the Captain reported back that the fire had been extinguished utilizing the first attack line.

WATER SUPPLY

The City of New Brighton is a community which has no open space requiring water shuttle operations, or so we thought. The New Brighton Fire Division does not have hard suction hoses, drop tanks, or water tenders and the apparatus all have either 750 or 500 gallon water tanks. The incident on the interstate presented a water supply issue in that there were no fire hydrants readily accessible to establish a continuous water supply. Additional arriving apparatus were used as water shuttles to supply both attack engines.

Recognizing the limitations of the New Brighton Fire Division with providing a sustained water supply without fire hydrants, if the initial attack had not extinguished the fire, mutual aid would have been requested from the neighboring Lake Johanna Fire Department and their Chief officers would have been asked to establish a Water Supply Group due to their experience in this operation.

AFTER THE FIRE WAS OUT

The decision was made to continue establishing a Class B foam suppression capability in the event an unplanned event would occur. Early in the incident, a request was made for the Minnesota Department of Transportation to supply two tandem axle dump trucks loaded with sand in the event of a container breach. Prior to the tanker being lifted by the tow truck, a sand truck was positioned downhill between the incident and the nearest storm drain, with a crew assigned to contain any spill as a result of a dynamic breach during the lifting process.

Although not designed or recommended for Class B fire suppression, the Class A foam concentration mixed at 1% created a significant foam blanket on the roadway and spill which had to be removed via a MNDOT plow truck to allow the Freeway to open again.

The incident was turned over to the MNDOT hazardous materials inspectors who oversaw the removal of the

tanker, as well as the regulatory responsibilities involving the driver and the company involved. The Fire Division remained on site during the duration of this operation.

LESSONS LEARNED

The preparation for this incident began years prior to it actually occurring, and while no incident is perfect, this incident was resolved with minimal property damage and no injuries or fatalities. Whether Chief Officers or probationary members, firefighters are well served by mentally rehearsing for predictable events. When responders encounter an incident which they have not prepared for, decision making is slowed and may be flawed. Incident-based decisions are reached based upon training and experience. Firefighters can spend a few minutes out of everyday thinking about "what-ifs" and how they would respond to various foreseeable incidents.

Training- Conducting training involving local partners was valuable to understanding what was happening with the tanker and why things were behaving the way they were, which assisted in developing an incident action plan. Due to the environmental hazards associated with the use of Class B foam, the ability of fire departments to conduct realistic fire training is limited. Establishing the Class B operation was slowed by in-experience and unfamiliarity with the nuances of setting up this process. Departments who possess this equipment would be well-served to review the process periodically to increase competence. Specialized hazardous materials training received by the Incident Commander related to gasoline tanker fires allowed recognition of the elements which are important to the initial attack as well as the overall incident strategy.

Cooperation- This response involved personnel from New Brighton, MN-DOT, Ramsey County Sheriff's Department, Twin Cities Towing, and the State Patrol. The ability of each agency to work together was imperative to ensuring all personnel operate safely. Our partners go beyond the fire service with each agency playing a role in the overall successful outcome of any event.

Communication- With the use of the 800Mhz radio system, all agencies are able link together to hopefully form a common operating picture. During this incident, there was fragmented communications with each agency op-

erating on their own radio talk groups and messages relayed via dispatch. Based upon this experience, for future incidents we will attempt to place the Traffic Control on one talk group, Fire Suppression on a talk group, and if needed Water Supply on a talk group so all agencies are able to communicate and share information. An example of the confusion created by multiple radio talk groups was one of the sand trucks being diverted for traffic control, due to a lack of communication as to the importance of the sand.

CONCLUSION

Many elements of the incident worked in our favor that day. We were fortunate the fire was a result of the wet lines releasing their product and not a compromised tank due to landing gear damage. Despite damage to the tank, it did not rupture when it fell off the tractor. The fire was under the tank, impinging on the liquid which absorbed the heat and mitigating serious heat damage to the containment vessel. The physical controls built into the MC406 tank and the actions of the first arriving engine crew substantially contributed to the successful resolution of this incident and avoided the CNN morning headline, "BURNING TANKER ON BRIDGE IN MINNESOTA." ❁

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Tim Jones Kevin Sax
763-238-5133 (cell) 763-238-5134 (cell)
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730 Buchanan St., Anoka, MN 55303
763-421-1723 • 763-427-2633 (fax)
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