

[www.GotBigWater.com](http://www.GotBigWater.com)



**Pittstown Volunteer Fire Company  
Pittstown, New York**

**Rural Water Supply Operations Seminar  
2-hr Water Supply Drill  
April 19, 2026  
Summary Report**

# The Purpose

- The purpose of the seminar and drill was to review the basics of rural water supply operations and to practice water supply operations in a non-hydranted setting.
- The drill also allowed mutual aid companies to work together in a real-life training situation.



# The Seminar



- The 2-day seminar included a 4-hour classroom session to review the basics of rural water supply operations.
- The review session was held at the Pittstown fire station.
- Once the classroom part was over, the seminar continued with 8 hours of practical work on fill-site and dump site operations.
- The program concluded with the 2-hr ISO tanker shuttle exercise and program review.
- Seminar participants were from Rensselaer County, NY and the surrounding area.

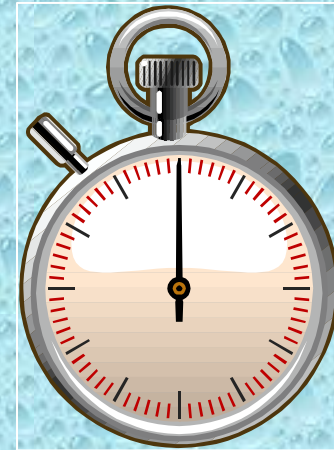
# The 2-hour Water Supply Drill

- The tanker shuttle drill was held on April 19<sup>th</sup> at a closed elementary school up the street from the Pittstown fire station.
- The drill attempted to replicate the 2-hour Water Supply Delivery Test used by ISO in their evaluation of fire department water supply capabilities.
- While ISO no longer uses the physical demonstration of water supply delivery, the 2-hour test is still a reasonable standard by which fire departments can compare their water supply operations.
- *ISO now uses computer modeling to predict tanker shuttle flow capabilities.*



# The ISO Test

- The ISO 2-hour Water Supply Delivery Test has three critical time segments:
  - 0:00 to 5:00 minutes
  - 5:01 to 15:00 minutes
  - 15:01 to 120:00 minutes



# ISO Test *0:00 to 5:00 Minutes*

- A drill location is selected and the units due to respond on the first-alarm assignment are dispatched.
- Time starts when the first engine arrives on the scene and comes to a complete stop.
- There is no requirement to flow water during the first 5 minutes, but the crew must be prepared to flow water once the 5-minute mark is reached.



# ISO Test *5:01 to 15:00 minutes*



- At the 5-minute mark, a flow of at least 250 gpm must be started - and it must be sustained.
- During the next 10-minutes, crews can work to further develop their water supply and increase their flow, however...
- At the 15-minute mark ( 5+10), whatever amount of water is flowing at that time must be maintained for the remainder of the 2-hour test.

# ISO Test *15:01 to 120:00 minutes*

- Once the 15-minute mark has been reached, the remainder of the 2-hour test is really just about **sustaining** the flow.
- The ISO test includes the simulation of automatic mutual aid response and allows additional water supply units to arrive and assist in the delivery process as would happen on a real incident.
- The real advantage of the ISO test is that it gives a fire department the chance to see where improvements can be made in their water supply delivery process.



It is one thing to say that your fire department can deliver 500 gpm for two hours – it is another thing to prove it in a real-life drill scenario!

# Water Supply Drill Participants

Department	Unit	Pump Size (gpm)	Tank Size (gallons)	Dump Tank (gallons)
Eagle Mills	Tanker 10-8	2000	3000	
Hoosic Valley	18-8	500	1850	2200
Hoosick	167	1500	3000	3500
Johnsonville	ETA 19-7	1550	2500	3000
Melrose	206	2000	1500	
Mountain View	216	1250	1000	
Petersburgh	Tanker 24	2000	3000	3000
Pittstown	ETA 25-6	2000	3000	(2) 2100/2500
Pittstown	E 25-1	2000	1000	
Raymertown	ER28	2000	1000	
Raymertown	28-8	1250	2500	2500
Raymertown	28-6	1250	1500	2000
Rowe	Tender 303	1000	2600	(2) 1500/2000

- The participants for the drill were from several different fire departments in the northern Rensselaer County region and the water hauling apparatus was representative of the type of water supply support that would respond to a structure fire in the Pittstown area.*

# The Drill Begins



The drill started with crews executing an attack tanker operation. E216 (1250 gpm) arrived on the scene and went to work as the attack pumper. It was supported by ET25-6 who performed as an attack (nurse) tanker for the duration of the operation. Flow started through a diffuser at 250 gpm and was increased to 500 gpm at the 15 minute mark.

# The Rural Hitch



From attack tanker operations, crews quickly migrated to a rural hitch operation using a 5" double-clappered siamese. The tanker from Raymertown was the first tanker on the first tanker task force and started pumping the clappered Siamese. Each tanker hooked up and pumped off in turn.

# The Rural Hitch



The rural hitch was able to handle the 500 gpm fire flow and continued for the first 30 minutes of the drill. Each tanker hooked up and pumped off in turn. Note that the water supply officer had the tankers alter the route of travel so that they can all pump off the right hand side (easy access to LDH discharges).

# Dump Site Operations



At the 30 minute mark, E25-1 and crew started to set up for dump tank operations. 2 tanks with 2 transfer devices were set up. The first tank was full and E25-1 had its draft and was supplying the clappered Siamese by the 40 minute mark. The second dump tank went into operation a few minutes later. Flow was increased to around 600 gpm.

# Dump Site Pumper - intakes



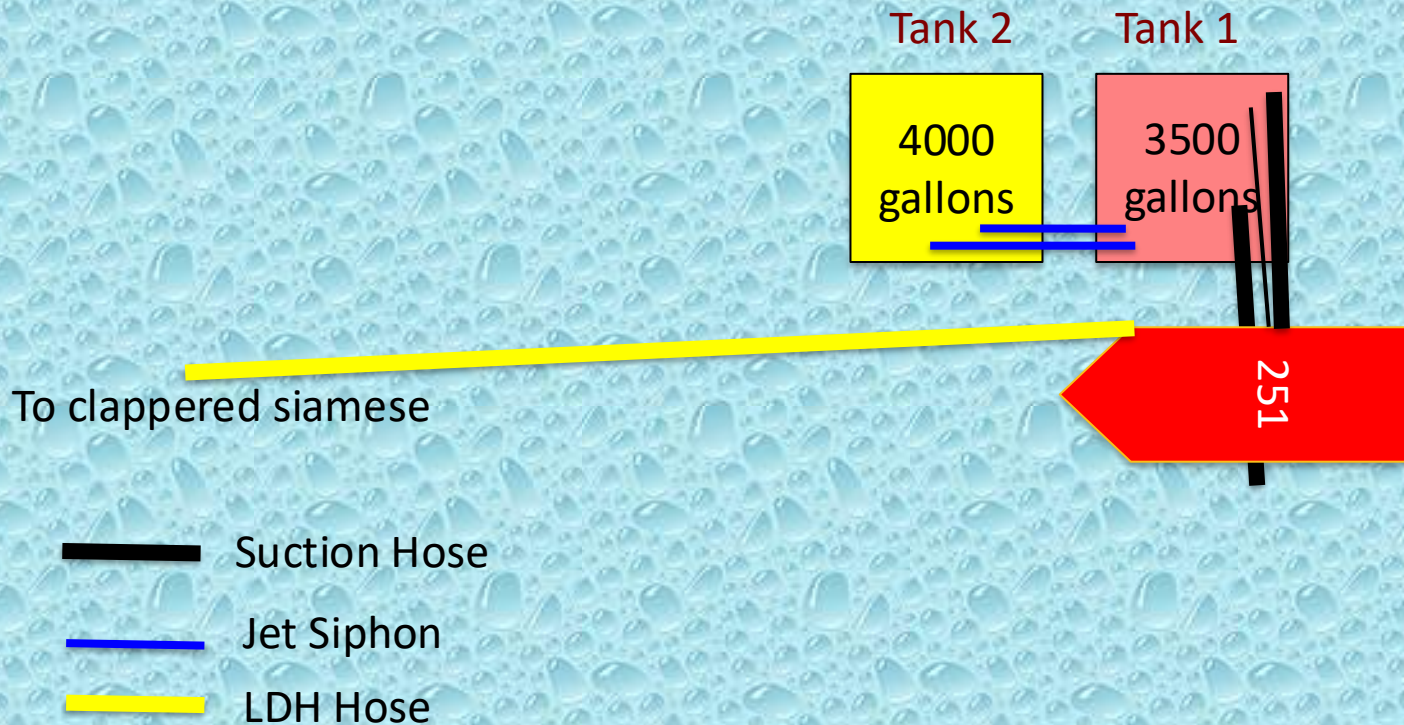
The dump site crew set up the dump site pumper with multiple intakes so that it could deliver high flows to the fire ground AND support jet siphon transfer devices. A set of 6" hard sleeves ran from each side intake, and a "pony" suction of 3" hard sleeves was run from the officer's side auxiliary intake. This pumper is equipped with master intake valves on each intake which makes this process much easier.

# Dump Site water transfer



The two tank operation worked well, in part because the two transfer devices ensured that the transfer rate was higher or equal to the usage rate. Peak flow from the operation was 1000 gpm. Note the jet siphon at the top of the left hand picture is positioned in the lowest part of the tank.

# Dump Site Layout



# The Fill Site

- For this drill – two fill sites were used. Both were static water sources. Melrose E206 staffed the site at the Pittstown fire station fire water pond and Raymertown ER28 staffed the other at the Tomhannock Reservoir. Both sites were able to fill at 1000 gpm.
- The one vacuum tanker involved filled itself at the fire water pond.

# Fire water pond fill site



E206 utilized the dry fire hydrant and set up fill lines to support hooking up to two tankers (but only filled one at a time).

# Reservoir fill site



ER28 drafted from a dry hydrant at the reservoir.

# Vacuum tanker fill site



The vacuum tanker attempted to use the DFH in the background but found it to be leaky and blocked. Instead, it set up its own hard sleeves and then left them there for repeated use. Note the cam locks on the hard sleeve. This makes it easy for the driver to operate by himself. The lesson here is just let the vacuum tanker do their own thing...they can take advantage of water supplies that conventional pumpers can't.

# The Results

- The drill was stopped at the 2 hour mark.
- An estimated 68,00 gallons of water were flowed through the attack pumper during the drill producing an average flow rate of 631 gpm.
- For the last 40-minutes of the drill a flow of 800 - 1000 gpm was supplied.

# The Lessons Learned

- At this drill, crews chose to use a rural hitch operation to get things started.
- Using the rural hitch gave the crews time to get a dump tank set-up without the added pressure of having to draft and flow water right away.
- Tankers pumped off on the right to take advantage of high flow discharges, but then reversed direction to dump off of the left, so that the drivers had an easier time spotting the dump tanks.

# The Lessons Learned

- The attack tanker was very useful in ensuring that the attack engine never lost water. The dump site pumper did lose water a couple of times due to a lack of tankers, a tanker dumping on top of its strainer, or strainers exposed due to low water in the tank. The presence of 3000 gallons of water co-located with the attack engine meant that the attack engine never noticed any of these occurrences.

# The Lessons Learned

- The dump site pumper was able to supply a peak flow of 1000 gpm to the simulated fire ground and feed water to two jet siphons. This was never a problem due to the multiple intakes in play. Crews did have to move the strainers to ensure that they were located in the deepest part of the dump tank.

# The Lessons Learned

- A tanker fill-site needs to run like a NASCAR pit stop. Anything that slows down the loading of tankers is going to reduce the efficiency of the tanker shuttle.
- At this drill, all tankers (except the vacuum tanker) filled the same way, which made life easier for the fill site crews.

# The Lessons Learned

- Jet siphons, suction hose, and dump tanks are needed at most every dump tank operation – therefore, it is wise to carry those items on every tanker – as well as adaptors. Tankers should be thought of, and equipped to be, tool boxes for rural water supply.

# Drill Videos

**Be sure to watch videos from  
the drill on the  
GotBigWater  
YouTube Channel.**

# Summary

- The drill was a success. For the new folks, they got to see how dump tank operations work.
- For the older, experienced folks, it was a chance to practice their “craft.”
- The success of the drill showed the importance of mutual aid response practices and procedures – and the importance of mutual aid interoperability.
- Many thanks to the Pittstown Fire Department for hosting the seminar.



# www.GotBigWater.com

*This program was developed by  
GBW Associates, LLC  
Copyright © 2026*

*No part may be used or copied  
without expressed written consent.*

*For more information contact us at  
**[thebigcamel@gotbigwater.com](mailto:thebigcamel@gotbigwater.com)***