



## INSPECTIONS AND GRANTS

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To: NC Fire Chiefs and Fire Marshals

From: Tony Bailey, Fire Department Inspections Supervisor

Re: New Water Haul Changes

The Ratings and Inspections division has been working extremely hard to provide the fire departments in the State with the changes in the water haul guidelines that were presented to us from ISO a few months ago. The new water haul guidelines have been streamlined to provide a more realistic and safer approach to what fire departments can provide regarding water supply during the first fifteen minutes of a working structure fire. These changes allow us to grade all alternative methods of water supply including drop tanks, extended hose lays, and nursing operations. It also allows increased flexibility between the fire department and their inspector regarding the option of videoing their fire scene setup ahead of the inspection date and sending it to the inspector for review.

I believe these changes are very positive and will give us a more definitive understanding of what a fire department's actual method of operation is depending on the type and size of the structure. Our staff has worked to provide the new guidelines in a video format that explains the changes and we have also added an attached job-aid to assist with questions that may arise during the process (page 2 of this memo). The video can be found at <https://youtu.be/zEtEUCkKjMU>

As always, if you have any questions regarding the video and reviewing the job-aid, please contact your assigned inspector and they will be glad to help with any further questions you may have regarding the new guidelines.

It is our pleasure to serve the fire departments in North Carolina and if I can be of assistance to any of you, please contact me at any time. We thank all the fire departments for your dedicated service to your communities.

CC: Davie Summey  
Mike Williams  
Brian Taylor

OFFICE OF STATE FIRE MARSHAL

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## Hauled Water Procedures

### Fire Scene Set Up Procedures

Departments must demonstrate that they can deliver 250 GPM within 5 minutes of the first arriving engine. This is truly a pass/fail demonstration; the overall time does not affect the calculation. If a department is unable to meet this set up requirement, they will not be able to use the drop tank as an alternate water method for the grading.

#### Equipment Needed:

- 1 Engine
- 1 Tanker
- 1 Drop Tank
- 100' of 2-½" hose with a 1-1/8" tip

The number of personnel allowed in the demonstration is 6 in Total: *(4) for the Engine (2) for the Tanker.*

For fire departments that have been graded on a hauled water operation in the past, they can now video tape the fire scene set up and submit it at the time of the inspection.

For fire departments that have not been graded using the hauled water operation, we will witness the demonstration of the fire scene set up.

The firefighters taking part in the demonstration must be wearing the following gear: boots, bunker pant, helmet w/chin strap, gloves, and traffic vest. *(REMEMBER: Jr. FFs should not participate).*

You no longer drive in 200' from the starting point.

The maximum time to complete the set-up is 5 minutes or less.

The timing will start when the doors open on the cab.

The time will stop when there is 250 GPM flowing from drop tank out the 2-½" handline and 1-1/8 in smooth bore tip.

We no longer measure how much water is left in the drop tank.

We no longer record the size of the drop tank.

When videoing this demonstration, the video must capture the deployment of the drop tank and 2- ½ hose line. We will need to see a shot of the pump panel showing the steamer connection is open and tank to pump valve is closed, as well as the pressure gauge showing the proper PSI for flowing 250 GPM.

### **Dump Time Procedures**

When collecting dump times of a tanker you no longer drive in 200', dump, and drive out 200'. We are now collecting the time it takes for the tanker to dump, the hauled water program automatically adds one minute to that time for the driving in, positioning the truck and clearing the tank for another truck.

To obtain the dump time: When the dump valve is open you start the time, the time stops when you normally stop on an actual fire. This does not have to be dumped into a drop tank.

### **Fill time Procedure**

If a fire department uses pressure hydrants to fill, we want to collect two different fill times. One using a direct fill from a hydrant and one using an engine to fill.

When collecting fill times of a tanker you no longer drive in 200', get filled, and drive out 200'. One minute is added to the times for position the truck and connecting and disconnecting the hose.

### **Tanker Flow Rate Procedure**

If a nurse operation is utilized, on ANY of your needed fire flows, the GPM flow rate of the tankers on your first alarm assignment will need to be obtained.

To obtain this time, you will need a ground mounted deluge gun, a 1- $\frac{3}{4}$  tip and a pitot gauge. You will need the normal tanker-engine supply line size and hose length used, to collect the flow PSI.

*Ex. If you normally use 4in line, but your AA Departments utilize 3in, then every tanker needs to use the 3in line to supply the ground mounted deluge gun.*

Once the flow is established, the pressure will be increased to the point of maximum discharge pressure for that size line and set-up. At that time, the pitot reading will need to be recorded.

A pitot reading should be obtained/recorded for ANY apparatus used in this method of operation.