



## Rochelle Municipal Utilities Water/Water Reclamation

To: David Plyman

From: Kathy Cooper

Date: October 8, 2013

RE: HDPE Pipe for Water Services

The current City Code, 98-102, requires Type K copper pipe for water services from the main to the meter. Two factors, the corrosion of copper services and the cost of copper, have caused the Division to look at alternative materials for residential water services. At this time, I am recommending a change in the City Code to allow the installation of HDPE, from the main to the meter. If HDPE pipe is used for a water service, a tracer wire must be installed with the pipe so that it can be located.

The current code is:

**Sec. 98-102. Service pipes.**

(b) *Specifications.*

(1) All new water service pipes from the main to the meter shall not be less than one inch, type K copper, unless otherwise provided in this section. Replacement of existing water service pipes from the main to the curb stop shall be one-inch type K copper. All fittings and connections shall be uniform and comply with specifications established by RMU. All service pipes shall be buried a minimum of 5 1/2 feet deep in the ground. No installation shall be covered until inspected and approved by RMU.

(2) All new water service pipes smaller than two inches shall be type K copper pipe, including all water service pipes located under concrete streets and state or county highways, and shall be installed to their specifications. All service pipes two inches and larger shall be ductile iron, thickness Class No. 52, cement lined, per ANSI A 21.4 (AWWA C104), with mechanical or rubber ring (slip seal or push on joints), or polyvinyl chloride (PVC) pipe. For service pipe two inches or larger but smaller than four inches, the PVC pipe shall be AWWA C-901. For four inches and greater, the PVC pipe shall be AWWA C-900 or C-909. All PVC pipe shall use Class 150 DR18 with bell and spigot push-on joints elastomeric gaskets ASTM F-477 and installed in accordance with the standard specifications for water and sewer main construction in the state. If PVC is installed, the service must be installed with a tracer wire for future locating purposes. The tracer wire must be grounded and terminated in a tracer wire termination box, Valco or equal.

The proposed change is:

**Sec. 98-102. Service pipes.**

(b) *Specifications.*

(1) All new water service pipes from the main to the meter shall not be less than one inch, type K copper **or HDPE Copper Pipe Size DR 9**, unless otherwise provided in this section. Replacement of existing water service pipes from the main to the curb stop shall be one-inch type K copper **or HDPE Copper Pipe Size DR9**. All fittings and connections shall be uniform and comply with specifications established by RMU. **Stainless steel stiffeners must be used on all HDPE connections. If HDPE is used for the service, a tracer wire must be installed adjacent to the service pipe, and it must terminate in a tracer wire termination box, Valco or equal. The tracer wire termination box must be placed within one foot of the curb box and must be tested. All tracer wires must be grounded using a brass anchor to attach a one-half inch by three foot brass grounding rod to the stripped wire.** All service pipes shall be buried a minimum of 5 1/2 feet deep in the ground. No installation shall be covered until inspected and approved by RMU. **HDPE pipe must meet the AWWA C901 Standard.**

(2) All new water service pipes smaller than two inches shall be type K copper pipe or **HDPE Copper Pipe Size DR9**, including all water service pipes located under concrete streets and state or county highways, and shall be installed to their specifications. All **two to four inch** service pipes shall be **HDPE Copper Size Pipe DR9** with **stainless steel inserts** or polyvinyl chloride (PVC) pipe. For **pipes** four inches and greater, the pipe shall be PVC or **ductile iron, thickness Class 52, cement line, per ANIS A 21.4 (AWWA C104) with mechanical or rubber ring (slip seal or push on joints)**. PVC pipe shall be AWWA C-900 or C-909. All PVC pipe shall use Class 150 DR18 with bell and spigot push-on joints elastomeric gaskets ASTM F-477 and installed in accordance with the standard specifications for water and sewer main construction in the state. If PVC is installed, the service must be installed with a tracer wire for future locating purposes. The tracer wire must be grounded and terminated in a tracer wire termination box, Valco or equal.

