GUIDELINE F.08 – Private Fire Hydrant and Attached Backflow Prevention Device Maintenance, Testing, and Reporting

F.08.1 PURPOSE

The purpose of this guideline is to provide information and requirements for the maintenance, testing, and reporting of privately owned fire hydrants in accordance with the California Code of Regulations Title-19 (CCR), National Fire Protection Agency (NFPA 25) and Newport Beach Municipal Code (NBMC).

F.08.2 SCOPE

The City of Newport Beach recognizes these privately owned fire hydrants as fire protection systems. This guideline applies to all new and existing privately owned fire hydrants and attached backflow prevention devices located in the City of Newport Beach, California.

F.08.3 PROCEDURE

The State of California requires the owner of any premises on which private fire hydrants are installed, have the fire hydrants self inspected annually by a qualified owners representative as permitted under California Title 19 Chapter 5, Paragraph 904.1(a), and tested every five years by a qualified person who has one of the following licenses:

- State of California Contractor State License Board Fire Protection Contractor (C-16) license
- State of California Contractor State License Board Plumbing Contractor (C-36) license
- State of California Contractor State License Board Pipeline Contractor (C-34) license
- California State Fire Marshal License A (Type 1, Type 2, or Type 3)

Testing and maintenance shall ensure that private fire hydrants are ready for emergency use. Any overhaul, maintenance, or replacement of a private fire hydrant

shall be approved by the Life Safety Services and the local water purveyor. All private fire hydrants shall be maintained with OSHA “Safety” red colored paint.

A. Hydrant maintenance

1. At least once a year, the following actions shall be conducted and recorded:

a. Observe the general conditions of the fire hydrant and ensure the following:

(1) Verify they are visible and accessible.

(2) Remove the caps and inspect threads, gaskets and cap chains.

(3) Clean and lubricate threads.

(4) Check the operating nut or stem valve to verify it works correctly.

(5) Locate and exercise the underground control valve (key valve, road box or foot valve).

(6) Operate each valve on the fire hydrant and flow water for not less than one minute.

(7) Clean and paint fire hydrant OSHA “Safety” red.

(8) Verify the drains properly drain (dry barrel hydrant only).

(9) Any deficiencies noted shall be corrected immediately.

B. 5 year Hydrant Test

1. Every five years the following actions shall be conducted and recorded:

a. Perform annual fire maintenance as outlined in Section A.

b. Perform flow testing in accordance with NFPA 291 Recommended Practices for Fire Flow Testing and Marking of Hydrants to determine the internal condition of the piping.

c. Care should be taken to not allow any trash and debris into the storm drains that are in the flow path prior to testing. It is recommended that, the owners qualified representative, redirect the flow of water into the sewer system, a water truck or into a planter or landscaped area.

d. If flushing into the sewer system, dechlorination of the water shall be completed prior to the water entering the sewer system.

C. Backflow Prevention Maintenance

NBMC requires a Double Check Valve Assembly (DCVA) to be placed on private fire hydrant supply piping to prevent contamination back into the City's potable water supply.

If no backflow prevention devices are found on the system, you must contact the City of Newport Beach Utilities Division- Water Quality Coordinator, as a backflow prevention device may be required in accordance with State and local codes.

If cross-connection devices are added to an existing fire protection system, it shall be up to the owner and/or contractor to provide calculations to the Life Safety Services verifying the existing fire protection system demand is met.

1. Backflow Inspection

a. All valves shall be inspected quarterly for leaks to ensure the OS&Y isolation valves are in normal open position.

b. Reduced pressure assemblies (RPA) shall be inspected quarterly to ensure that the differential-sensing valve relief port is not continuously discharging.

c. Valves secured with locks or electronically supervised shall be inspected quarterly.

2. Backflow Testing

a. All backflow prevention devices installed on fire protection system piping shall be tested annually by conducting a forward flow test of the system at the designated flow rate.

3. Backflow Maintenance

   a. Inspection, testing and maintenance shall ensure that the backflow prevention is working properly and is ready for use. Any overhaul, maintenance, or replacement of backflow devices shall be conducted by a trained individual and approved by the City of Newport Beach Utilities Division and the local water purveyor.

D. Reports

1. A report of the annual inspection and five-year tests shall be provided to the property owner and to the Newport Beach Life Safety Services on California State Fire Marshal approved forms.

2. California State Fire Marshal approved forms and additional information are available on the City's webpage: http://www.newportbeachca.gov/government/departments/fire-department/life-safety-services-division/fire-sprinklers

3. When a five-year test is completed, the Pitot tube reading, flow results and residual pressure must also be indicated on the report.

4. Any flow test results that indicate deterioration of available water flow and pressure shall be investigated to the complete satisfaction of the Newport Beach Life Safety Services to ensure that the required fire flow and pressure are available for fire protection.