

clamped in place and power applied through a controlled processor. The material surrounding the wire shall be melted along with the pipe and shall provide the pressure required for fusion. Electro-fusion joints shall be installed in accordance with the manufacturer's instructions.

- (2) Mechanical and compression sleeve joints shall be installed in accordance with the manufacturer's instructions.

**605.9 PP-AL-PP Plastic Pipe and Joints.** PP-AL-PP plastic pipe and fittings joining methods shall comply with the following:

- (1) Heat-fusion joints between polypropylene pipe and fittings shall comply with ASTM D2389, CSA B137.11 or equivalent International Standard(s) approved by the Authority Having Jurisdiction and shall be assembled using butt-, socket- and electro-fusion heat methods.

Butt-fusion joints shall be made by heating the squared ends of two pipes, pipe and fitting, or two fittings by holding ends against a heated element. The heated element shall be removed where the proper melt is obtained and joined ends shall be placed together with applied force. Butt-fusion joints shall be installed in accordance with the manufacturer's instructions.

Socket-fusion joints shall be made by simultaneously heating the outside surface of a pipe end and the inside of a fitting socket. Where the proper melt is obtained, the pipe and fitting shall be joined by inserting one into the other with applied force. The joint shall fuse together and remain undisturbed until cool. Socket-fusion joints shall be installed in accordance with the manufacturer's instructions.

Electro-fusion joints shall be made by embedding the resistance wire in the fitting and supplying with an electric source. Pipe shall be clamped in place and power applied through a controlled processor. The material surrounding the wire shall be melted along with the pipe and shall provide the pressure required for fusion. Electro-fusion joints shall be installed in accordance with the manufacturer's instructions.

- (2) Mechanical and compression sleeve joints shall be installed in accordance with the manufacturer's instructions.

#### **606.0 Valves.**

**606.1** Valves up to and including 50mm (2 in.) in size shall be brass or other approved material. Sizes exceeding 50mm (2 in.) shall be permitted to have cast-iron or brass bodies. Each gate or ball valve shall be a fullway type with working parts of non-corro-

sive material. Valves carrying water used in potable water systems intended to supply drinking water shall meet the requirements of NSF 61 as referenced in Table 14-1 or equivalent International Standard(s) approved by the Authority Having Jurisdiction.

**606.2** A fullway valve controlling outlets shall be installed on the discharge side of each water meter and on each unmetered water supply. Water piping supplying more than one building on any one premises shall be equipped with a separate fullway valve to each building, so arranged that the water supply can be turned on or off to any individual or separate building, provided; however, that supply piping to a single-family residence and building accessory thereto shall be permitted to be controlled on one valve. Such shutoff valves shall be accessible at all times. A fullway valve shall be installed on the discharge piping from water supply tanks at or near the tank. A fullway valve shall be installed on the cold water supply pipe to each water heater at or near the water heater.

**606.3** In multidwelling units, one or more shutoff valves shall be provided in each dwelling unit so that the water supply to any plumbing fixture or group of fixtures in that dwelling unit can be shut off without stopping the water supply to fixtures in other dwelling units. These valves shall be accessible in the dwelling unit that they control.

**606.4** Valves used to control two or more openings shall be fullway gate valves, ball valves, or other approved valves designed and approved for the service intended.

**606.5** A control valve shall be installed immediately ahead of each water-supplied appliance and immediately ahead of each slip joint or appliance supply.

Parallel water distribution systems shall provide a control valve either immediately ahead of each fixture being supplied or installed at the manifold and shall be identified with the fixture being supplied.

**606.6** Required shutoff or control valves shall be accessible.

**606.7** A single control valve shall be installed on a water supply line ahead of any automatic metering valve that supplies a battery of fixtures.

#### **607.0 Potable Water Storage Tanks.**

**607.1 General.** The regulations set forth shall govern the installation, location and construction of potable water storage tanks. For the purposes of this section, potable water storage tanks shall be defined as any storage vessel that holds potable water for consumption and is connected to a public water supply known as the water storage tank (see Guide to Water Supply Regulations for Roof Tanks).