**Section 604.1100 General Chemical Application Requirements**

a) Permit Requirement. No chemicals may be applied to treat drinking water unless specifically permitted by the Agency.

b) Chemical must be applied to the water at such points and by such means as to:

1) assure maximum efficiency of treatment;

2) assure maximum safety to consumers;

3) provide maximum safety to operators;

4) assure satisfactory mixing of the chemicals with the water;

5) provide maximum flexibility of operation through various points of application, when appropriate; and

6) prevent backflow or back siphonage between multiple points of feed through common manifolds.

c) General equipment design must be such that:

1) feeders will be able to supply, at all times, the necessary amounts of chemicals at an accurate rate, throughout the range of feed;

2) chemical contact materials and surfaces are resistant to the aggressiveness of the chemical solution;

3) corrosive chemicals are introduced to minimize potential for corrosion;

4) chemicals that are incompatible are not stored or handled together;

5) all chemicals are delivered from the feeder to the point of application in separate conduits; and

6) chemical feeders and pumps operate at no lower than 20 percent of the feed range unless two fully independent adjustment mechanisms, such as pump pulse rate and stroke length, are fitted when the pump must operate at no lower than 10 percent of the rated maximum.

d) All chemical containers must bear the name, address and telephone number of the supplier, along with a functional name or identification and strength of the chemical.

e) Storage containers must be reserved for use of one chemical only.

f) Chemicals must not be fed in excess of the maximum dosage stated in the NSF/ANSI Standard 60, incorporated by reference in Section 601.115.