- WAC 246-359-405 Concrete masonry units (CMU) materials. (1) Solid masonry units must not be used.
- (2) Water. Water used in mortar or grout must be clean and free of deleterious amounts of acid, alkalis or organic material or other harmful substances.
 - (3) **Cement.** Cementitious materials for:
 - (a) Grout must be either lime or portland cement; and
 - (b) Mortar must be one or more of the following:
 - (i) Lime;
 - (ii) Masonry cement;
 - (iii) Portland cement; or
 - (iv) Mortar cement.
- (4) **Mortar.** Mortar must consist of a mixture of cementitious materials and aggregate to which sufficient water has been added to achieve a workable, plastic consistency.
- (5) **Grout.** Grout must consist of a mixture of cementitious materials and aggregate to which water has been added such that the mixture will flow without segregation of the materials.
- (6) Handling, storage and preparation of materials. Handling, storage and preparation of materials at the site must conform to the following:
- (a) Masonry materials must be stored so that at the time of use the materials are clean and structurally suitable for use.
- (b) All metal reinforcement must be free from loose rust and other coatings that would inhibit reinforcing bond.
 - (c) Concrete masonry units must not be wetted.
 - (d) Mortar or grout mixed at the job site must be mixed for:
 - (i) A period of time not less than three minutes; or
- (ii) More than ten minutes in a mechanical mixer with the amount of water required to provide the desired workability.
 - (e) Hand mixing of small amounts of mortar is permitted.
- (f) Mortar may be retempered, except that mortar or grout which has hardened or stiffened due to hydration of the cement must not be retempered or used again.
- (g) When water has been added to the dry ingredients, at the job site the mixed:
- (i) Mortar must not be used after two and one-half hours has passed; and
- (ii) Grout must not be used after one and one-half hours has passed.
- (h) Mortar and grout dry mixes, blended in the factory, and mixed at the job site must be mixed in mechanical mixers until workable. The on-site mixing time must not exceed ten minutes if the mix is to be acceptable for use.

[Statutory Authority: RCW 70.114A.081. WSR 99-03-065, \$ 246-359-405, filed 1/18/99, effective 2/18/99.]