

Changes to MNL 117 and Category AC Mixer Requirements

The Plant Certification Committee recently appointed a task group to review the requirements for the stationary mixer in MNL-117, section 4.3.4.2, paragraph 2, and for the Category AC Production Capability requirements in Table 1 of the Architectural Certification Program Supplemental Requirements. The task group recommended that:

1. Section 4.3.4.2 of MNL 117 be clarified during a future revision of MNL-117. In the meantime, an addendum should be adopted to clarify these requirements.
2. The addendum should state that truck mixing is allowed for face mixtures provided that certain specified requirements are met:
3. Truck mixing of concrete face mixtures for category AC should be permitted provided these requirements are satisfied

The task group's recommendations were approved by the Plant Certification Committee during their meeting at the 2021 Convention and by the Quality Activities Council in June 2021.

Task group recommendations (as approved):

1. Section 4.3.4.2 should be clarified during a future revision of MNL-117. In the meantime, an addendum should be adopted to clarify these requirements.
2. The addendum should state that truck mixing is allowed for face mixtures provided the following requirements are met:
 - a. All mixture constituents must be located at the precast plant where the mixture will be prepared and be under the precaster's control.
 - b. The trucks used for mixing must be located at the precast plant where the mixture will be prepared and be under the precaster's control.
 - c. The precaster must have a program for regular inspection and maintenance of the truck mixers, as required by section 4.3.4.4 of MNL-117.
 - d. When qualifying the face mixture, the qualification shall define the batching process to be utilized (specific mixture design, order of adding ingredients, timing of adding ingredients, number of revolutions, etc.), to ensure batch-to-batch consistency. Once the batching process is complete, MNL 117 requirements regarding retempering still apply.
 - e. The concrete shall be delivered without segregation, thoroughly mixed, and discharged with a satisfactory degree of uniformity as defined in ASTM C94/C94M. Uniformity testing in accordance with Annex A1 of ASTM C94/C94M must be part of the qualification testing for the face mixture and include the following attributes:

Test	Maximum Permissible Difference
Permissible Difference Air-free density (unit weight), kg/m ³ [lb/ft ³]	16 [1.0]
Air content, %	1.0
Slump, mm [in.]: If average slump is less than 100 mm [4 in.] If average slump is 100 to 150 mm [4 to 6 in.]	25 [1.0] 40 [1.5]
Coarse aggregate content, %	6.0

3. The task group recommends permitting truck mixing of concrete face mixtures for category AC provided the above requirements are satisfied.