

Memorandum

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To: DEPUTY DISTRICT DIRECTORS, Construction
DEPUTY DIVISION CHIEF, Structure Construction
CONSTRUCTION MANAGERS
SENIOR CONSTRUCTION ENGINEERS
RESIDENT ENGINEERS

Date: September 29, 2017

File: Division of Construction
CPD 17-6

From: RACHEL FALSETTI, Chief
Division of Construction



Subject: **CONTRACTOR OPTION TO USE RETURNED PLASTIC CONCRETE**

The 2015 Revised *Standard Specifications* (RSS) Section 90-9, "Returned Plastic Concrete," contains language allowing the addition of up to 15 percent returned plastic concrete (RPC) to fresh concrete, but only for specific use as described in the specifications. RPC is unused concrete that is returned to a concrete plant in a plastic state. Along with other requirements, RPC must not have attained an initial set and must not exceed 100 degrees Fahrenheit at any time. A hydration stabilizing admixture (HSA) may be used that extends set retarding. HSA controls and predictably reduces the hydration rate of the cementitious material.

Without use of HSA, RPC must be added to fresh concrete before attaining initial set or within 4 hours after original batching of RPC, whichever is earlier.

With use of HSA, the HSA must be added to RPC within 4 hours after original batching and the RPC must be added to fresh concrete within 4 hours after adding HSA. The specifications describe the requirements for use of HSA.

Sidewalks, driveways, and cover over drainage pipes are typical concrete applications where 15 percent RPC may be used. RPC is not allowed for use in pavement and structural concrete.

When a contractor elects to use 15 percent RPC in fresh concrete, review the RPC specifications to verify that all requirements are met. For a material plant to produce concrete containing RPC, it must be authorized under the Caltrans Material Plant Quality Program (MPQP). Upon request from a contractor to use RPC, notify the Caltrans district MPQP plant inspector. If the material plant has not already been certified to use RPC, the inspector will visit the plant and follow MPQP procedures to certify it for RPC use.

Only after the MPQP certification process is complete may you allow the material plant to deliver concrete that has RPC in it for use on a Caltrans project and only for specific use concrete allowed by the specifications.

If you have questions or comments regarding this directive, please contact Jim Cotey, Division of Construction, at jim.cotey@dot.ca.gov or (916) 227-5709.