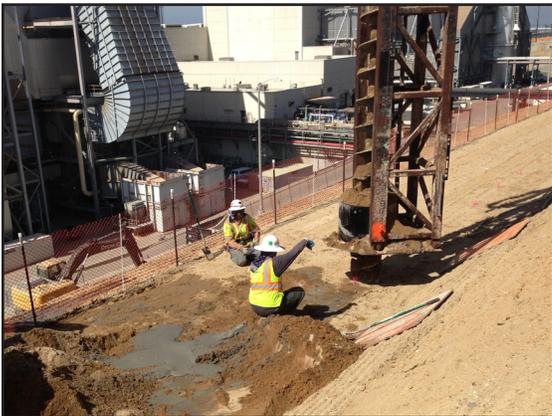

Micro-Aid SP Stands Up to Los Angeles Beach Sand

Winter 2013-14

Hayward Baker was recently subcontracted by Kiewit to place 4,500 cubic yards of soldier pile grout at the Los Angeles Department of Water and Power's Scattergood Generating Station. Kiewit originally planned to do the soldier piles themselves, but after struggling to complete a short segment of wall on their own, the decision was made to rely on the geotechnical expertise of Hayward Baker. The substrate was composed mainly of dry beach sand. The Hayward Baker team knew from past experience that the extreme conditions would make it difficult to get the beams to the bottom of the piles before the water was pulled out of the grout by the surrounding soil. Another concern was that the heavily-sanded, low-strength mix they planned to use would segregate making it difficult to pump.



Hayward Baker inquired about the water retentive additives Specrete offers for augercast piling. Coincidentally, Specrete had just completed the development of a new water retentive additive designed specifically for soldier piles called Micro-Aid SP.

Micro-Aid SP improves soldier pile grout in a variety of ways. It provides a significant amount of water retention, making it easier for the beams to fall to the bottom of the pile, even in challenging soil conditions. It generates about 20% air to lower the cost of materials and reduce ultimate strength for easy excavation. It creates a uniform, easy to pump mix that doesn't bleed or segregate. The Scattergood job was the ideal proving ground for Specrete's newest additive.

Micro-Aid SP transformed the stiff, sandy mix into light, flowable grout with the consistency of a milkshake. The treated grout was easy to pump and stayed fluid, even after sitting in the line during down-time. The already lean mix contained about 15% air so excavation is easy. Most importantly, Micro-Aid SP provided the water retention needed to get the beams down. In difficult soil conditions, Hayward Baker typically uses a vibro-hammer to force the beams into place. The conditions at Scattergood were so extreme that the vibro-hammer alone was not effective. Micro-Aid SP prevented the surrounding dry soil from wicking away mix water and kept the grout fluid enough for the beams to drop with little or no help from the hammer. With the help of Micro-Aid SP the Scattergood job is steadily moving along despite the challenging conditions.

