PROJECT PROFILE

MINSI LAKE DAM

PROJECT DATA
Location – Upper Mount Bethel Township, PA
Application – Cast-In-Place Concrete Spillway
Design Engineer – Schnabel Engineering, Inc.
General Contractor – KC Construction Company
Concrete Producer – Pocono Transcrete
Applicator – Performance Construction
Total Area – 2,000 ft³ (56.6 m³)

PRODUCTS FEATURED
EUCON® SRA-XT
Shrinkage Reducing Admixture
CONEX®
Shrinkage Compensating Admixture

SCOPE OF PROJECT
Replacement of the trapezoidal weir, chute and stilling basin in the spillway

PROJECT SUMMARY
The project involved replacement of the deteriorated and inadequate trapezoidal concrete weir, chute and stilling basin with a new cast-in-place concrete spillway. The replacement spillway is a two-stage, five-cycle labyrinth weir designed to generally match existing spillway hydraulic characteristics for flows up to the computed 100-year flood and also pass the Probable Maximum Flood without overtopping the embankment. The spillway side walls are 1 ft (0.3 m) wide at the top with a 1:16 batter on the back side: 1 ft (0.3 m) wide at the top and 2 ft (0.6 m) wide at the bottom of the 16-foot-high (4.9 m) wall section. The labyrinth weir walls have a constant width of 1.5 ft (0.5 m). By utilizing the combination of EUCON SRA-XT and CONEX in the concrete for the spillway weir and walls, cracking was virtually eliminated.

Photos courtesy of Schnabel Engineering, Inc.