**Beneficial Use Case Study**

**Dover Air Force Base Runway Project**

**Coal Combustion Product Type**
Thermally Refined Class F Fly Ash

**Project Location**
Dover, Delaware

**Project Participants**
NRG, Allega Concrete Corporation, SEFA Group

**Project Completion Date**
December 2016

**Project Summary**
Dover Air Force Base is home to the U.S. Air Force’s fleet of C-5s and C-17s—both large military transport planes. The base’s north–south runway 01-19 required a complete renovation to extend its lifespan an additional 50 to 75 years—necessitating its shutdown for a year and a half. Runway 14-32 required a partial overhaul. In February 2016, the project reached the stage at which the intersection of both runways needed to be worked on—temporarily cutting 14-32’s length from 12,900 ft to 6000 ft and limiting the operational capabilities of Team Dover’s C-5M Super Galaxy fleet.

**Project Description**
This project involved the replacement of 10,000 ft of concrete pavement along runway 01-19, as well as 1700 ft of concrete pavement along the intersection of runway 14-32 and runway 01-19. In addition, taxiways bravo, charlie, delta, echo, and foxtrot were rehabilitated with an average of 4000 yd³ of concrete per day. Thermally refined Class F fly ash was sourced from SEFA’s STAR processing plant at Morgantown Generating Station in Newburg, Maryland.

To maximize efficiency and production on the project, Allega mobilized two on-site concrete batch plants. Working in conjunction with each other, they placed over 165,000 yd³ of concrete to manage the large daily production needs. The scope of work on this project entailed over 246,000 yd² of 15 and 20 in. concrete finished pavement and over 257,000 yd² of 5 in. drainage layer concrete.