

SDRMCA EXCELLENCE IN READY MIXED CONCRETE AWARDS

"Quality from Concept through Completion"

NOMINATION ENTRY FORM

The deadline for submission of nominations is **December 15, 2009**. To be eligible for an award, submissions must include the data requested below, a narrative, and 2 to 4 photographs (digital images preferred) of the project.

Submit nominations to:

SDRMCA
5024 S Bur Oak Place #206
Sioux Falls, SD 57108

Direct questions to:

Jody Titze, SDRMCA
(605) 274-0145
jtitze@sdrmca.org

Nominator

Chad Henrich	GCC Ready Mix	(605)229.3700
Name	Company	Phone

Project Description and Category

Titan I – Rolling Thunder Wind Towers	
Project Title	
19906 350th Ave	Ree Heights, SD
Street Address	City
Special Projects	
Project Category for Judging	

Project Team

Rolling Thunder I Power Partners, LLC	Owner
Company	Role in project
Name	Title
GCC Ready Mix	Ready Mix Concrete Producer
Company	Role in project
Chad Henrich	SD District Manager
Name	Title
Barr Engineering Co.	Project Engineer/Engineering Firm
Company	Role in project
Joel Bahma	
Name	Title
Mortenson Construction	Project Contractor
Company	Role in project
Michael Baenen	Project Manager
Name	Title

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Please describe the use of ready mixed concrete in the nominated project. Consider the following items as appropriate. This narrative should be no more than 1 (one) page in length.

- General project description, including the beginning and ending dates of construction
- Elements of project where ready mixed concrete was used, volumes per element
- Significant architectural or engineering design features
- Special material, mix design, placement, or other construction requirements
- Aesthetic, environmental, economic, scheduling, or other noteworthy considerations
- Value of using concrete relative to other construction materials
- Other items which make the project worthy of an award

Environmental concerns are increasingly being subsided due to one particular type of farm growing in popularity in South Dakota and surrounding mid-west states; the wind farm. Renewable energy sources are of great interest and with these wind farms comes great opportunity for the ready mix concrete industry in creating the massive bases needed to stabilize the towers. BP Energy and Clipper Windpower have entered into a joint venture to develop the Titan Wind Farm, a 5,050 megawatt production facility, to become the largest in the world costing approximately \$15 Billion and utilizing 500,000 acres of land. The completion of the project is anticipated to take up to 10 years but started this past year with Phase I, the smallest of the phases at 25MW.

Mortenson Construction worked diligently during the 18 day pouring time frame running from July 1st to July 18th to construct the 10 bases to hold towers averaging 330' tall. GCC Ready Mix utilized a portable plant for the project and supplied 5,236 cubic yards. Approximately 390 cubic yards of 2000 psi and 4,846 cubic yards of 5000 psi concrete were used. Typically the crews would pour the 2000 psi mud mat, set rebar the next day and then pour the base of 420 cubic yards followed by the pedestal of 49 cubic yards and lastly the crew of Muth Electric would pour the 8 cubic yard transformer base on the wind tower base. One of the largest challenges in completing these pours in the short time frame was the South Dakota weather. Strong storms moved through the area bringing heavy rains, lightning and ironically very powerful winds.

This project was featured in a TV episode called Dangerous Drives by the Speed Channel that highlighted the trek the wind towers and blades took from their production facilities to the project site in South Dakota. During this documentary the challenges facing the trucking company were highlighted which included the SD winds and weather as a storm moved through at the exact time the pieces were being delivered causing the crews to wait out the night only to experience a peaceful morning. This goes to prove the old adage; "If you don't like the weather in SD, wait a minute."