POWER Engineering

Projects of the Year Award Winners

By Sharryn Harvey, Show Daily Editor

Monday night at the Las Vegas Hilton, *Power Engineering* magazine recognized the 2009 Projects of the Year Award finalists during a gala dinner. Each year, the magazine's editors recognizes some of the world's best projects in four major categories: gas-fired, coal-fired, nuclear and renewable. Editors from the magazine chose one winner and two honorable mention recipients in each category.

The best coal-fired power plant project of 2009 was Dallman Unit 4, a project of City Water, Light & Power, Springfield, Ill.

Dallman Unit 4 is one of the cleanest subcritical pulverized coal units in the U.S. The 200 MW plant is owned by Springfield, Ill., municipal electric utility, City Water, Light & Power, which negotiated a landmark agreement with the Sierra Club that allowed the Dallman Unit 4 project to proceed without any litigation over its air permit.

The agreement called for improvements to the air quality control systems, efficiency improvements at the existing Dallman units, increased efficiency programs for customers and the purchase of 120 MW of wind capacity.

The project started in December 2006, just a month after the agreement with the Sierra Club was reached. With a $515 million price tag, it is the most expensive capital project ever undertaken by the city of Springfield.

Dallman Unit 4 is 34 percent more efficient than other units at the site. Its flue gas cleaning processes will remove 99 percent of the sulfur dioxide, 95 percent of the nitrogen oxide formed when burning high sulfur Illinois coal and 90 percent of the mercury.

The plant uses a plume-abated cooling tower to prevent heated cooling water from being released into a nearby lake and significantly reduces the chance of fog developing near an adjacent highway.

The project team overcame obstacles including air permit challenges, but CWLP collaborated with the Sierra Club to ensure a smooth transition through the permitting process. Tighter emission standards meant design changes had to be made, even though project engineering and procurement were more than 50 percent complete. Officials, however, decided to keep the project moving ahead.

The final result was a project completed seven months ahead of schedule and within budget. Because of its high efficiency, energy produced by Dallman 4 is expected to provide $12 million in savings in its first year of operation.

Honorable mention awards were presented to Spurlock Station Generating Unit 4, East Kentucky Power Cooperative, Maysville, Ky.; and OPPD Nebraska City Unit 2, Omaha Public Power District, Omaha, Neb.

Honorable mentions went to the Hastings Hydrokinetic project developed by Hydro Green Energy and the City of Hastings, Minn. and the Kimberlina Solar Thermal Energy Plant developed by Ausra in Bakersfield, Calif.