



Carbon Capture Project Overview

ALSTOM



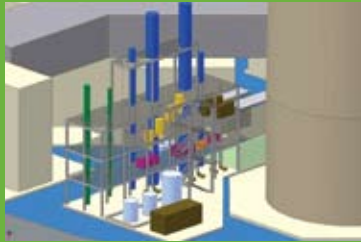
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1



AUG. 2007 Steelwork began on the equipment support structure. The first phase of steelwork was installed on a newly constructed concrete pad.

2



SEPT. 2007 Construction progressed on the open-concept pilot structure. (Structure, 20' wide x 74' long, houses chilling and other process equipment for capturing carbon dioxide gas.)

3



OCT. 2007 Process vessels (83' tall) were assembled outside the equipment support structure.

4



NOV. 2007 Flue gas supply and return piping was connected between the Flue Gas Desulfurization Scrubber on the Pleasant Prairie Power Plant stack and the chilled ammonia carbon capture process equipment.

5



DEC. 2007 Chiller system and heat exchanger cooling towers were installed in the equipment support structure.

6



DEC. 2007 System readiness work commenced as portions of the project moved to the system-commissioning and start-up phases of the construction process.

7



FEB. 2008 System readiness activities were finalized. Start-up phases of the carbon capture project near completion.

8



SEPT. 2008 Had reliable pilot operation with 24-7 availability.

Project Results

- Had reliable pilot operation with 24-7 availability
- Achieved a greater than 90 percent CO₂ removal rate at design conditions
- Produced high purity CO₂ with low ammonia (less than 10 ppm) and water content (less than 2,500 ppm)
- Collected and analyzed empirical data on energy consumption – a key driver of cost; and the results validate the figures being used in commercial feasibility studies
- Proved that the chilled ammonia carbon capture system works successfully in the field on flue gas from an operating power plant