



New Diesel Engine Development Lab

New Plumbing and Process Piping

Contract Value: \$4.4 million

Project Description: S. P. McCarl & Company, Inc. performed all the plumbing and process piping for the new diesel engine development lab. The 100,000 SF Engine Development Laboratory (EDL) features eight state-of-the-art, heavy-duty diesel engine emissions test cells rated at 800 kw/1,000 hp and numerous support functions to test large diesel engines. Upon completion, the EDL was the most state-of-the-art engine development laboratory of its kind in the world.



S. P. McCarl & Company, Inc. installed well over 30,000 feet of piping ranging in sizes as small as 1/4" diameter stainless steel to as large as 16" diameter carbon steel. The scope of work also included the installation of nearly 900 valves and large equipment such as cooling towers, centrifugal chillers, steam boilers, heat exchangers, air separators, and as many as 40 pumps as well as numerous plumbing fixtures.



Technical Challenge: Since the project included a new state-of-the-art engineering laboratory, it entailed constructing something that had not been developed before. This project required strong communication among the owners, professionals, construction manager, and contractors.

The project was loaded with a large number of process systems that made coordination of all team members imperative. The complexity of the design required numerous scope changes throughout the project. Close teamwork was necessary to ensure timely completion and quality installation.

