

FRONTEND

Global Awareness

Virtually every square inch of the Earth's surface is detailed on maps. While engineers relish this wealth of data, finding the right map with the right information can be daunting—and costly.

That's why Bechtel's Geographic Information Systems group recently developed a database of the company's most commonly used maps, from terrain elevations and highway maps to wetlands locations. The database minimizes duplicated efforts and costs, and its open storage format allows employees to import, combine, and overlay maps in standard engineering software. It's a powerful way to centralize and automate the dissemination of important data.

America's Next Super Modules

Motiva's expansion of its Port Arthur refinery is a Texas-sized project—the largest private capital investment in the state's history. Successful completion of the fast-track job depends on a Bechtel Jacobs joint venture's ability to assure the seamless engineering, fabrication, and assembly of nearly 300 modules

that will be used in eight different units of the plant.

With some weighing more than 1,200 tons (1,089 tonnes), the modular piperack assemblies are too big and complicated to be built on site. So they're taking shape at four offsite factories—three in the United States and one in Mexico. The project team interviewed more than 120 companies worldwide to find suppliers to do the job safely and on schedule.

The modules will begin arriving late in 2008, with project completion expected in 2010.

Tapping into Talent

When Bechtel decided to open an engineering office in Eastern Europe, Warsaw seemed an ideal location. Poland's engineering universities are among Europe's best, and its stable political and economic conditions and central location assured a good fit with the company's oil and gas projects in western Asia and the Middle East.

But there was another factor in Bechtel's decision—people. For two recent aluminum projects in the remote fjords of Norway and Iceland, Bechtel



**DOING
OUR PART**

EARTHQUAKE SAFETY TRAINING

Children at Gyan Devi Public School in Gurgaon, India, are better prepared for earthquakes thanks to a disaster readiness program conducted with the help of employees from Bechtel's New Delhi office.

Ten employees, working with GeoHazards International, a California-based nonprofit organization, identified and reduced hazards at the school and held preparedness drills for some 750 students and staff. Bechtel

Group Foundation contributed \$25,000 to support the effort.

"The need to make Gurgaon's schools earthquake-resistant became more apparent in light of school collapses and the deaths of tens of thousands of children in recent China, Kashmir, and Gujarat [India] earthquakes," said Raj Parekh, manager of the New Delhi office. Gurgaon, near New Delhi, is in an area prone to earthquakes

had to look beyond local borders for skilled workers. As the projects staffed up in 2004 and 2005, hundreds of Polish workers came aboard, introducing Bechtel managers to that country's experienced population of craft employees and engineers.

Once again Bechtel is looking for

Polish employees—this time on their home turf. And while they won't need a passport to reach the job site, locally hired engineers can expect to travel nonetheless. Warsaw is only two hours from Bechtel's London office and offers easy access to the company's engineering centers in New Delhi and Shanghai.