



CASE STUDY



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CALIFORNIA CASE STUDY

LOCATION:

Vandenberg Air Force Base, CA

PROJECT SCOPE:

Water distribution system overhaul by replacing 70 year-old outdated concrete and cast iron pipes

APPLICATION:

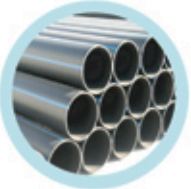
More than 72,000 feet of 6-inch to 18-inch high-density polyethylene (HDPE) pipe installed in the main base area of the 100,000-acre facility

PROJECT DATES:

Two phases, phase II complete in 2004

KEY CONTACTS:

Brian Newsom, superintendent, Specialty Construction
Shauna Grider, P.E., engineer at Vandenberg AFB
Steve Wilson, President, High Country Fusion, Fairfield, ID



SUMMARY

The old and outdated concrete and cast iron pipes at Vandenberg Air Force Base (VAFB) were starting to break more often. The service lines were not cut and capped at the mains - instead, they were cut and capped at the individual buildings. Consequently, these dead-end service lines between the main and the demolished building provide areas of stagnant water – a serious health issue.

Specialty Construction, led by Superintendent Brian Newsom, was the contracting firm for both phases of this project. More than 72,000 feet of 6-inch to 18-inch high-density polyethylene (HDPE) pipe was installed in the main base area of the nearly 100,000-acre facility. The Vandenberg AFB engineer, project designer and Army Corps of Engineers representatives had a specific set of criteria they used to decide which pipe material best suited this application.

“It had to be something that would last a long time and be low maintenance,” said Shauna Grider, P.E., an engineer at Vandenberg AFB. “We learned we could achieve a theoretical zero-leak joint. Plus, this being a high seismic zone, the flexible nature of the HDPE pipe will give with the movements in the earth.”

Polyethylene pipe provides a leak-free system through its joining process – heat fusion – that produces strong, totally sealed connections. Because it is a non-conductor, polyethylene is simply not subject to corrosion.

“There are literally hundreds of connections to make on a project of this magnitude,” said Steve Wilson of High Country Fusion. “Because of the ability to fuse the pipe in the field, Specialty Construction could lay the pipe first and then go back and install the tees and other connections and fittings. With so many connections, doing the work in the field makes installation easier.”

“With HDPE pipe and heat fused joints, there’s nothing to break apart.” Gottwald said. “The joint is as strong or stronger than the pipe itself.”

For more info see: Vandenberg AFB PPI article in the Case Studies section at www.pepipe.org

*Please do not hesitate to contact the Alliance with any questions or comments.
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