THE COMPRESSOR STATION

PG&E's Hinkley natural gas compressor station near Barstow, California

The natural-gas compressor station—owned by Pacific Gas & Electric at Hinkley, California—used hexavalent chromium which was discharged into the environment. This PG&E photo depicts that compressor station.

Hinkley is located in the Mojave Desert, near the town of Barstow, California. It is not far off the famous Route 66, about 150 miles from Las Vegas.

Surrounded by beautiful scenery, Hinkley is an important point on PG&E's natural gas pipeline as it travels from Texas to California.

The background of the Hinkley Compressor Station is best described by PG&E in the flyer it gave to neighbors of the plant.

> *The Hinkley Compressor Station was built in 1952 as part of the pipeline system that brings southwest natural gas to PG&E's service area. These PG&E gas lines serve Barstow and the surrounding area by delivering gas to Southwest Gas Company. The Station compresses one third of the natural gas required by PG&E's customers in northern and central California.*

The purpose of the Compressor, as it works to deliver gas to homes and businesses, is to boost pressure and to send the natural gas northward. As part of the plant's operation, heat is generated during the gas compression process, and the heat is removed with cooling water. The water, in turn, is cooled by the passage through cooling towers."

Although this process sounds straightforward, operating just like thousands of other facilities with cooling towers around the world, PG&E did something else.

Gas compression generates heat. That means the gas and the compressors have to be cooled with circulating water which, in turn, passes through cooling towers.

To keep its cooling towers from corroding too fast, PG&E added a "corrosion inhibitor" to the cooling water from the day it first operated the plant. That corrosion inhibitor was chrome 6.

When the cooling water became saturated with undissolved solids (like chrome 6), PG&E discharged some of it into unlined earthen ponds located at the compressor station. That wastewater is referred to as "blow down cooling water."

The amount of toxins contained in PG&E's completely unpurified blow down cooling water is stunning.

Even more stunning were the amounts of residue left on the soil after PG&E sprayed contaminated wastewater into the air. After the water dried, soil-containing chrome 6 was free to blow in the wind where it could be inhaled by living things.

See Alignments to State and Common Core standards for this story online at:
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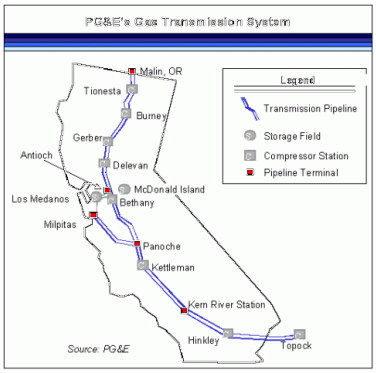
Media Stream



Natural Gas Pipeline

Image online, courtesy the pge.com website.

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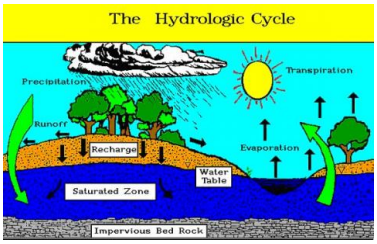

The Hydrologic Cycle

Image online, courtesy USGS.

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PG&E's Hinkley natural gas compressor station near Barstow, California

PG&E Compressor Station at Hinkley, California

Image online via Pacific Gas & Electric's website on the Hinkley, California compressor station.

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