

CH-320

Log report-6

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The presentation was about The Hinkley Groundwater Contamination which occurred in Hinkley near California. It's one of the worst cases of subterranean water pollution.

The company that caused the contamination, Pacific Gas and Electric Company (PG&E), had the 'largest electric utility business in the US at the time, selling and distributing electricity and natural gas. The PG&E gas compression station was located near Hinkley, California, in the Mojave Desert. Compressor stations are an important aspect of the distribution network since they help to prevent problems when transferring natural gas, which requires extensive pipe networks.

Between 1952 and 1966, the Pacific Gas and Electric Company (PG&E) dumped over 370 million gallons (1,400 million liters) of chromium-tainted wastewater into unlined wastewater. This happened because PG&E used chromium 6, an inexpensive and effective rust suppressor, in their natural-gas transmission pipeline compressor station, despite the knowledge that chromium-6 is a carcinogen.

The presentation also includes the entire sequence of events, starting with a description of the company that caused the contamination, its history, the governing principles of Gas Compression Station operation, and finally, the tragic consequences of the tragedy, which included serious immediate and long-term health consequences, economic consequences, and the potentially massive cleanup issue, among other things.

The presentation then includes how The company's irresponsibility, aggravated by the decision to use a less expensive rust suppressor, had a significant role in the accident. Groundwater remediation has been requested by PG&E. In the class-action lawsuit, a 333 million dollar

settlement was achieved. Despite this, the plume has spread and contamination levels have increased considerably over the threshold, resulting in an extra 3.6 million USD penalties for the firm.

The cleaning process was also described in order to avoid the effects. Ethanol diluted with water was pumped into the heart of the Cr+6 plume, where direct microbial reduction and indirect chemical reduction occur, resulting in the conversion of Cr+6 to Cr+3. Following the Newshour interview, PG&E's director of chromium remediation stated the company had cleaned up 54 acres, but the water would take another 40 years to clean up.

This poisoning had a lot of negative effects on the environment and human health. There have been reports of high levels of air pollution, biodiversity loss, soil contamination, and surface water pollution. Breast cancer, Hodgkin's disease, miscarriages, lung, brain, and gastrointestinal cancers are among the health consequences. Workers in chromium-using industries, such as electroplating, leather tanning, and other chromium-using activities, have been reported to suffer skin ulcers and have a higher cancer risk.

The disaster not only affects flora and fauna but has also affected the economy as the economy was wrecked, causing land and property values to plummet. According to estimates, an \$800,000 home was reduced to \$32,000.

The lessons acquired from this catastrophe can be used in future occurrences to help avert them. Hazards must be detected, and risks must be assessed effectively. Companies and businesses involved in the treatment and distribution of water must not openly release water containing hazardous contaminants. Environmental testing should be done on a regular basis to detect pollutants. To avoid repeat calamities, the scope of risk management should be broadened, and current procedures should be challenged from a variety of angles.

