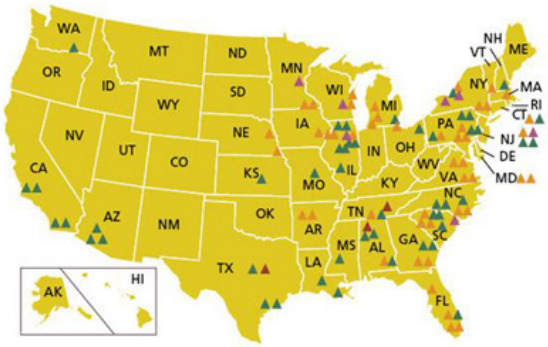
HOW CLOSE ARE YOU TO A NUCLEAR SITE?

US Nuclear Sites

U.S. nuclear weapons infrastructure sites during the Cold War through the present. Places with purple names are no longer functioning and are in various stages of environmental remediation.

Map of major United States nuclear sites during the Cold War and into the present, from 2009. Created by User: Fastfission ("Wikimedia Commons") based on a map by User: Wapcaplet.

U.S. Commercial Nuclear Power Reactors—Years of Operation by the End of 2010



Years of Commercial Operation	Number of Reactors
△ 0–9	0
▲ 10–19	3
▲ 20–29	48
▲ 30–39	46
▲ 40 plus	7

Note: Ages have been rounded up tp the end of the year.

Regions and locations of licensed US power plants.

Map of United States nuclear regions and plant locations, from 2008. Created by U.S. Nuclear Regulatory Commission (NRC).

WHAT YOU NEED TO KNOW ABOUT ROCKY FLATS AND PLUTONIUM

ROCKY FLATS

- Rocky Flats was a U.S. nuclear weapons plant that produced more than 70,000 plutonium pits or "triggers" for nuclear bombs from 1952 to 1989.
- Each pit (if fractured into breathable particles) contained enough plutonium to kill every person on earth.
- Most residents of Colorado were not aware of the plant's activities, and workers weren't allowed to talk about them.
- Extensive contamination occurred in the air, water, and soil in residential areas near the site; frequent fires spread radioactive and toxic contaminants across the Denver metro area.

PLUTONIUM

- Plutonium is created from uranium in nuclear reactors. With a half-life of 24,000 years, it takes nearly 500,000 years for it to become non-radioactive.
- Plutonium is dangerous if it is inhaled into the lungs, or enters the body through swallowing or an open wound.
- Plutonium can stay in the body for decades and expose organs and tissue to radiation, which can cause cancer, birth defects, and other health problems.

ROCKY FLATS TIMELINE

1952: The plant begins production of plutonium pits or "triggers."

1957: A major plant fire spreads radioactive contamination as far as the metro Denver area.

1967: 5,000 barrels of plutonium-laden material, standing outdoors for over a decade, leak into the soil and contaminate local neighborhoods.

1969: A second major fire, the most expensive industrial fire to date in U.S. history, begins to bring public attention to Rocky Flats.

1970: Plutonium from Rocky Flats is found off-site; the Atomic Energy Commission (now the Department of Energy) admits to the contamination.

1975: Rockwell International replaces Dow Chemical as managing contractor.

1978: Studies begin to find higher levels of cancer and health issues in residents. Large-scale public protests begin.

1981: Jefferson County Health Director Dr. Carl Johnson is forced out of office for opposing housing development near Rocky Flats.

1983: Thousands of protesters join hands around the 17-mile perimeter of the plant.

1989: The FBI and the EPA raid Rocky Flats to collect evidence of violation of federal environmental laws. A federal grand jury is impaneled, and an investigation begins.

1990: EG&G assumes management of Rocky Flats. A class-action lawsuit, *Cook v. Rockwel Int'l*, is filed on behalf of more than 12,000 residents alleging that Dow and Rockwell allowed plutonium to contaminate their land.

1992: Rockwell pleads guilty to ten violations of the Clean Water Act and federal hazardous waste laws and pays a fine of $18.5 million. Despite jury recommendations, there are no indictments. The grand jury report and all evidence is permanently sealed.

1995: In the class-action suit *Cook v. Rockwell Int'l*, a U.S district judge holds the DOE in contempt of court for failure to release documentation regarding missing plutonium, health issues, and more.

1996: A Boston University epidemiologist finds "a continuing excess of cancer and ongoing health effects" in local residents.

1998: The Colorado Department of Public Health and Environment releases a report stating that there is no evidence of adverse health effects directly attributable to Rocky Flats.

2000: Legislation is passed to help compensate ill workers exposed on the job to various toxins and radioactive materials, but missing records and extensive red tape make it hard to prove.

2001: Kaiser-Hill LLC agrees to partially clean up Rocky Flats for an estimated $7.3 billion. The DOE initially estimated a total cleanup at $37 billion.

2005: Kaiser-Hill says the cleanup is complete, though onsite levels of remaining contamination are controversial.

2006: The jury in *Cook v. Rockwell Int'l* awards the plaintiffs $554 million.

2007: 4,465 acres of the Rocky Flats site are transferred to the U.S. Fish and Wildlife Service for eventual public recreation. 1,309 acres remain permanently closed to the public.

2008: The judge in *Cook v. Rockwell Int'l* issues a final award of $926 million. Dow denies any wrongdoing and appeals.

2010: The Tenth Circuit Court of Appeals in Denver overturns the decision on procedural, not evidential, grounds and throws out the award.

2012: The Supreme Court remands the case back to the original court; whether it will be retried is not now known.

2013: Local citizens initiate a petition opposing construction of a highway along the edge of the Rocky Flats site and also oppose new residential construction.