

FACTBOX-Timeline of U.S. nuclear reprocessing

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(Reuters) - Although no U.S. company now reuses its nuclear waste, the country has a long-running history with the technology. Following are timeline highlights of the U.S. inquiry into reprocessing and events that framed it.

1946: The Atomic Energy Act forms the Atomic Energy Commission (AEC) and gives the agency title to plutonium and uranium-235, the kind commonly used to produce nuclear energy.

1953: President Dwight Eisenhower proposes "Atoms for Peace" program that reorients nuclear research from building weapons to electricity generation, setting the ground for U.S. civil nuclear energy development.

1956: Chairman of the AEC announces a program encouraging the private sector to reprocess spent nuclear fuel.

1957: The National Academy of Sciences concludes that the best means of nuclear waste disposal is in rock deep underground.

1960: Westinghouse develops the first fully commercial pressurized water reactor, the kind commonly used today.

1963: The AEC-sponsored reactor begins reprocessing used nuclear fuel in Idaho Falls.

1966: The AEC issues a commercial reprocessing permit for a plant near Buffalo, N.Y. The facility reprocessed spent fuel from the federal defense weapons program but never commercial spent fuel. The plant shut down in 1972 for upgrades to meet stricter regulations, closing permanently in 1976 as it determined those standards couldn't be met.

1967: The AEC permits General Electric Co ([GE.N](#)) to build a reprocessing plant in Morris, Illinois. The construction stopped in 1972 and GE got a license to store its irradiated fuel.

1970: Allied-General Nuclear Services company starts building a commercial reprocessing plant in Barnwell, S.C. The company halted construction in 1981, unable to finish without federal funding.

1974: The AEC splits into two agencies, one responsible for research and development and another, Nuclear Regulatory Commission (NRC), overseeing nuclear plant licensing.

1976: Exxon Mobil Corp ([XOM.N](#)) applies for a license to build a reprocessing plant but receives no final response.

President Gerald Ford issues a policy statement, steering the nuclear energy industry away from reprocessing because of worries that plutonium would be misused for proliferation.

1977: President Jimmy Carter echoes Ford's warning and indefinitely defers commercial recycling of plutonium, which is part of the spent nuclear fuel.

1978: The Department of Energy starts in Nevada studying Yucca Mountain's potential to be the first long-term geological repository for American nuclear waste.

1979: A reactor failure leads to the largest accident in the history of the U.S. commercial nuclear industry at the Three Mile Island Nuclear Generating Station in Pennsylvania.

1981: President Ronald Reagan lifts Carter's ban on commercial reprocessing.

1982: U.S. Congress passes the Nuclear Waste Policy Act, outlining the plan to establish a permanent underground repository for radioactive waste by mid-1990s.

1987: Congress amends the Nuclear Waste Policy Act to designate Yucca Mountain as the only spot out of several suggested by the DOE to be explored for the nation's nuclear waste site.

1992: President George H.W. Bush prohibits Long Island Power Authority from working with the French firm Cogema to reprocess irradiated reactor core.

1993: President Bill Clinton discourages the nuclear industry from

reprocessing plutonium, and thus spent nuclear fuel as well, in a policy statement.

1996: The National Academy of Sciences declares nuclear fuel reprocessing impractical and too costly for the country.

2001: President George W. Bush in his national energy policy calls on the U.S. companies to develop reprocessing technologies.

2002: President Bush signs a House resolution to progress on building a national nuclear waste storage facility.

2006: The DOE announces it will start developing spent nuclear fuel recycling technology UREX and inquires whether domestic and international industry would be interested in building a recycling facility.

2007: The National Research Council finds "no economic justification" in developing nuclear reprocessing facilities before the technology is finalized and reports that pursuit of the program on the commercial scale would be impossible without large DOE investments.

2009: President Barack Obama ends the environmental review that was to set the ground for future commercialization of nuclear reprocessing in the United States. DOE proposes to eliminate all funding and close Yucca Mountain nuclear waste site, awaiting to hear the final NRC decision.
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