## Fermi 1 plant dismantling slow, costly

*It's been a long time and the information that the reactor developed might be lost unless DOE get's off it's ass.*

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Costs of cleaning and decommissioning the experimental atomic plant might top $44 million.

With $18.7 million already spent, cleanup and dismantling of the old Fermi 1 nuclear power plant probably will go over budget, but DTE Energy says it's committed to finishing the job.

Workers are carving up tons of piping, neutralizing remnants of radioactive sodium and stripping out miles of electrical cables in a tedious process that eventually will lead to the decommissioning of the former experimental breeder reactor.

"It takes time," said Lynne S. Goodman, Fermi 1 manager. "We're going slow, but we're going slow to go safe."

Located near the operating Fermi 2 plant, Fermi 1 was built in the mid-1950s by an industrial consortium that included Detroit Edison Co. It was created primarily to demonstrate that a reactor could turn used uranium into useful plutonium even while generating electricity, essentially creating more fuel than it used.

The plant began operating in 1966 and suffered a partial nuclear fuel melting accident on Oct. 5, 1966. It was repaired, restarted and operated periodically until 1972. It has been mothballed since then.

Though the reactor fuel and most of the volatile sodium that was used as a coolant were removed years ago, an estimated 374 gallons of residual sodium rests in the piping and tanks at the old plant.

A decommissioning fund was set up when the plant operated, but the costs of dismantling the plant are expected to eat up the $26 million that remains in it, partly because the fund lost value due to a drop in securities prices. Nonetheless, DTE Energy - Detroit Edison's parent company - has guaranteed it will cover any shortfall, Ms. Goodman said.

So far this year, about $3 million has been spent to pay a 25-member work crew and related disposal and contractor costs. "It's a cross-disciplined crew ranging from pipefitters to abatement workers, engineers, sodium specialists, supervisors, the whole gamut," Ms. Goodman said.

Some of the cost this year included drilling 13 monitoring wells near the plant to make sure plant hasn't contaminated groundwater. The wells are tested quarterly. Initial results show no contamination from the plant, Ms. Goodman said.

One of the most complex tasks involved in the dismantling is neutralizing the highly reactive sodium. "We can't dispose of sodium because it reacts with water," Ms. Goodman said. "You can't just bury it in the ground."

In a controlled process, the sodium is treated with steam, creating harmless sodium hydroxide and hydrogen.

Metal and other parts that remain radioactive are shipped offsite to a low-level waste disposal site.

After an earlier industrial cleanup, workers began the decommissioning phase in 2001. The plant's federal license is expected to end in 2009.

"One of the beauties of this is we aren't under any strict timetable, so we can take the time to do things carefully," said John J. Austerberry, an Edison spokesman