

# HOUSE BILL REPORT

## ESJM 8005

---

---

### **As Passed House:**

January 29, 1997

**Brief Description:** Petitioning for use of the Fast Flux Test Facility to meet critical national needs.

**Sponsors:** Senators Hale, Loveland, Rasmussen, Bauer, Haugen, Oke, Horn, Morton and Deccio.

### **Brief History:**

#### **Floor Activity:**

Passed House: 1/29/97, 38-7.

---

**Staff:** Margaret Allen (786-7110).

**Background:** The 560 square-mile Hanford Reservation is owned by the federal government, and managed by the United States Department of Energy (USDOE). Beginning during World War II, for more than 40 years the government made plutonium and other materials for nuclear weapons at Hanford. Now, the primary mission at Hanford is cleanup. The cleanup budget for fiscal year 1997 is \$1.64 billion, funded by the USDOE, which bears fiscal responsibility for cleanup at federal facilities. Cleanup is proceeding under the Tri-Party Agreement, signed by the USDOE, United States Environmental Protection Agency, and Washington State Department of Ecology. The agreement contains a blueprint for cleanup, and milestones to keep cleanup on schedule.

The Fast Flux Test Facility (FFTF) is a 400-megawatt, sodium-cooled, fast-flux test reactor owned by the USDOE and located on the Hanford Reservation. "Fast flux" means the neutrons move faster in a sodium-cooled reactor than they would if the reactor were cooled with water. The FFTF was designed and operated as a test reactor and has no capability to generate electric power (although the steam it discharges conceivably could be captured and used if a steam-driven electricity generator were constructed nearby).

Built in 1980, the FFTF was designed primarily to test fuels and materials for advanced nuclear power plants, specifically the effects of radiation on fuels and

materials. The FFTF also was used for research and testing of alloys and other materials for a variety of uses. Further, the FFTF was used to study and demonstrate isotope production. The FFTF was credited with producing, in 1986, the purest gadolinium-153 (used to diagnose osteoporosis) ever made. During the late 1980s, other isotopes reportedly were produced in the FFTF for cancer treatment and diagnostic research, and cardiovascular and brain studies.

After no long-term mission for the FFTF was identified, the USDOE placed the facility on standby status in April 1992. In late September 1993, a review team recommended the FFTF be shut down permanently. However, in early 1997, the FFTF was returned to standby status, to allow time to determine whether the facility should be used to produce tritium for national defense purposes until another reactor can be built, and to produce medical isotopes.

A private group is attempting to purchase or lease the FFTF and use it to produce tritium for use by the Department of Defense, to produce isotopes for medical, agricultural, industrial, and business applications, and for a variety of other purposes.

More than 90 percent of the reactor-produced medical isotopes currently used in the United States are said to be imported. Some medical isotopes have exceptionally short half-lives, leading to the suggestion that a cancer treatment center should be located near the source of isotope production.

**Summary of Bill:** *The memorial petitions the President of the United States, Congress, and the Secretary of Energy, to ensure Congress and executive agencies endorse the plan to fully and fairly evaluate the FFTF for use in meeting critical national needs, and to urge that the long-term best interests of clean-up activities at Hanford and cancer research be given top priority by the USDOE in arriving at its decision.*

**Appropriation:** None.

**Fiscal Note:** Not Requested.