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Fisher
3/6/20

CS FOR SENATE BILL NO. 194(CRA)

IN THE LEGISLATURE OF THE STATE OF ALASKA

THIRTY-FIRST LEGISLATURE - SECOND SESSION

BY THE SENATE COMMUNITY AND REGIONAL AFFAIRS COMMITTEE

Offered:

Referred:

Sponsor(s): SENATE COMMUNITY AND REGIONAL AFFAIRS COMMITTEE

A BILL

FOR AN ACT ENTITLED

"An Act relating to advanced nuclear reactors."

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF ALASKA:

*** Section 1.** AS 18.45.025(a) is amended to read:

(a) A person may not construct a nuclear fuel production facility, nuclear utilization facility, utilization facility, reprocessing facility, [OR] nuclear waste disposal facility, or advanced nuclear reactor in the state without first obtaining a permit from the Department of Environmental Conservation to construct the facility on land designated by the legislature under (b) of this section.

*** Sec. 2.** AS 18.45.025 is amended by adding a new subsection to read:

(d) Notwithstanding (a) or (b) of this section, the Department of Environmental Conservation may issue a permit to a person to construct an advanced nuclear reactor that has a power output of less than 300 megawatts on land not designated by the legislature under (b) of this section.

*** Sec. 3.** AS 18.45.900 is amended by adding a new paragraph to read:

(9) "advanced nuclear reactor" means

(A) a nuclear fission reactor with significant improvements compared to fission reactors in operation before January 1, 2020, such as

- (i) additional inherent safety features;
- (ii) lower waste yields;
- (iii) improved fuel performance;
- (iv) increased tolerance to loss of fuel cooling;
- (v) enhanced reliability;
- (vi) increased proliferation resistance;
- (vii) increased thermal efficiency;
- (viii) reduced consumption of cooling water;
- (ix) the ability to integrate into electric applications and nonelectric applications;
- (x) modular sizes to allow for deployment that corresponds with the demand for electricity;
- (xi) operational flexibility to respond to changes in demand for electricity and to complement integration with intermittent renewable energy;

(B) a prototype nuclear fission reactor with significant improvements compared to fission reactors in operation before January 1, 2020, such as those listed in (A) of this paragraph; or

(C) a fusion reactor.