

1.1 A bill for an act

1.2 relating to metals; requiring feasibility study of extracting rare earth metals from
1.3 fly ash resulting from coal combustion; appropriating money.

1.4 BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

1.5 Section 1. **APPROPRIATION; COAL ASH METALS STUDY.**

1.6 \$..... in fiscal year 2017 is appropriated from the general fund to the commissioner
1.7 of natural resources for a grant to the Natural Resources Research Institute at the University
1.8 of Minnesota-Duluth to study the technical and economic feasibility of using currently
1.9 available extraction techniques to recover economically viable concentrations of rare earth
1.10 metals, whose atomic numbers range from 57 through 71, from fly ash resulting from coal
1.11 combustion. By July 1, 2017, the findings and recommendations of the study must be
1.12 submitted in a report to the chairs and ranking minority members of the senate and house of
1.13 representatives committees with primary jurisdiction over mining. The report must include:

1.14 (1) a summary of the extant literature reporting measurements of the concentration
1.15 of rare earth metals in fly ash resulting from coal combustion;

1.16 (2) analysis of the technologies available to extract and concentrate rare earth metals
1.17 from fly ash;

1.18 (3) results of tests to measure the concentration of rare earth metals in representative
1.19 samples of fly ash taken from coal-burning power plants located in Minnesota; and

1.20 (4) estimates of the costs of extracting and concentrating rare earth metals from the
1.21 fly ash samples measured in clause (3) and a comparison of the costs with current and
1.22 projected market prices for the metals.