

119TH CONGRESS
1ST SESSION

S. _____

To ensure domestic sources of the critical mineral vanadium necessary for the steel, infrastructure, energy, and defense needs of the United States, and for other purposes.

IN THE SENATE OF THE UNITED STATES

Mr. HUSTED introduced the following bill; which was read twice and referred to the Committee on _____

A BILL

To ensure domestic sources of the critical mineral vanadium necessary for the steel, infrastructure, energy, and defense needs of the United States, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Spent Petroleum Cata-
5 lyst Recycling and Critical Minerals and Metals Recovery
6 Exemption Act”.

7 **SEC. 2. FINDINGS.**

8 Congress finds the following:

1 (1) In accordance with Executive Order 14272
2 (90 Fed. Reg. 16437; relating to ensuring national
3 security and economic resilience through section 232
4 actions on processed critical minerals and derivative
5 products), it is vital to maintain a supply of critical
6 minerals for the domestic manufacturing and de-
7 fense industries to protect the United States from
8 strategic supply-chain threats of foreign economic
9 and military enemies, such as China and Russia. Va-
10 nadium, a critical mineral, can be obtained domesti-
11 cally from recycling spent petroleum catalyst to
12 produce ferrovandium—a critical component in
13 high-strength steel used across the United States
14 steel, defense, infrastructure, and energy sectors—
15 thereby reducing dependence on foreign sources,
16 such as China and Russia.

17 (2) Units that recover vanadium and other met-
18 als and critical minerals from spent petroleum cata-
19 lyst legitimately recycle spent petroleum catalyst
20 solely for metals recovery, not for waste incineration
21 or energy recovery. Those units can include thermal
22 treatment units (such as roasters) that recycle spent
23 petroleum catalyst into an intermediate product suit-
24 able for metals recovery and metallurgical units
25 (such as furnaces and hydrometallurgical units) that

1 recover the metals from spent petroleum catalyst or
2 intermediate products. When legitimately recycled in
3 that manner, spent petroleum catalyst is eligible for
4 exclusions from classification as a solid waste under
5 the Solid Waste Disposal Act (42 U.S.C. 6901 et
6 seq.), such as the transfer-based exclusion under sec-
7 tion 261.4(a)(24) of title 40, Code of Federal Regu-
8 lations.

9 (3) The recovery of metals, including vanadium,
10 from spent petroleum catalyst can be a 3-step proc-
11 ess. First, oil refineries substantially partially re-
12 claim the spent petroleum catalyst through a de-oil-
13 ing process, or other process, to reduce volume and
14 recover hydrocarbons. Second, thermal treatment, in
15 a unit such as a roaster, is utilized to recycle spent
16 petroleum catalyst by converting vanadium, other
17 metals, or both from sulfides to oxides to produce an
18 intermediate product suitable for metals recovery.
19 Third, a metallurgical unit such as a furnace or
20 hydrometallurgical unit is used to recover the vana-
21 dium or other valuable metals using spent petroleum
22 catalyst or the intermediate product. Those steps do
23 not need to occur at the same facility.

24 (4) The notice of the Environmental Protection
25 Agency entitled “Hazardous Waste Management

1 System; Identification and Listing of Hazardous
2 Waste: Petroleum Refining Process Wastes; Land
3 Disposal Restrictions for Newly Identified Wastes;
4 and CERCLA Hazardous Substance Designation
5 and Reportable Quantities” (60 Fed. Reg. 57747
6 (November 20, 1995)) stated the following:

7 (A) De-oiling crude oil tank sediment—
8 which reduces waste volumes and recovers hy-
9 drocarbons—is legitimate recycling exempt
10 from the Solid Waste Disposal Act (42 U.S.C.
11 6901 et seq.), analogous to substantial partial
12 reclamation of spent petroleum catalyst.

13 (B) Units that recover vanadium and other
14 metals and critical minerals from spent petro-
15 leum catalyst are analogous to smelting, melt-
16 ing, and refining furnaces, which are condi-
17 tionally exempt from the Boilers and Industrial
18 Furnaces (referred to in this section as “BIF”)
19 requirements under the Solid Waste Disposal
20 Act (42 U.S.C. 6901 et seq.) because they re-
21 cover valuable materials;

22 (C) Units that recover vanadium and other
23 metals and critical minerals from spent petro-
24 leum catalyst process hazardous waste solely for

1 materials recovery as opposed to destruction or
2 energy recovery.

3 (D) Units that recover vanadium and other
4 metals and critical minerals from spent petro-
5 leum catalyst, which recycle spent petroleum
6 catalyst (which is a commodity), should be ex-
7 empt under the Solid Waste Disposal Act (42
8 U.S.C. 6901 et seq.) to promote the recovery of
9 valuable materials.

10 (E) Units that recover vanadium and other
11 metals and critical minerals from spent petro-
12 leum catalyst are already equipped with pollu-
13 tion controls comparable to those required
14 under BIF and further regulation may be un-
15 necessary.

16 (5) Permits under title V of the Clean Air Act
17 (42 U.S.C. 7661 et seq.) and other air permits and
18 regulations already enforce robust environmental
19 safeguards, making the application of the Solid
20 Waste Disposal Act (42 U.S.C. 6901 et seq.) BIF
21 requirements to units that recover vanadium and
22 other metals and critical minerals from spent petro-
23 leum catalyst duplicative and unnecessary.

24 (6) Clarifying the regulations pursuant to sec-
25 tion 3 will encourage environmentally safe domestic

1 recovery of metals and critical minerals, including
2 vanadium, from spent petroleum catalyst to ensure
3 access to an affordable, resilient, and sustainable
4 supply of processed critical minerals for United
5 States industry while avoiding unnecessary regu-
6 latory burdens, as the Environmental Protection
7 Agency proposed in the notice described in para-
8 graph (4).

9 **SEC. 3. REGULATIONS.**

10 (a) IN GENERAL.—As soon as practicable after the
11 date of enactment of this Act, the Administrator of the
12 Environmental Protection Agency shall promulgate a final
13 rule to revise the regulations under subtitle C of the Solid
14 Waste Disposal Act (42 U.S.C. 6921 et seq.) as follows:

15 (1) Revise subsections (c) and (d) of section
16 266.100 of title 40, Code of Federal Regulations, to
17 expressly provide that units reclaiming valuable met-
18 als, including critical minerals (such as vanadium),
19 from spent hydrotreating catalyst (EPA Hazardous
20 Waste No. K171) and spent hydrorefining catalyst
21 (EPA Hazardous Waste No. K172) from petroleum
22 refining operations are exempt from the Boilers and
23 Industrial Furnaces requirements under the Solid
24 Waste Disposal Act (42 U.S.C. 6901 et seq.).

1 (2) Clarify that the exemption described in
2 paragraph (1) applies to—

3 (A) thermal treatment units, including
4 roasters, that process the spent petroleum cata-
5 lyst into an intermediate product suitable for
6 metals reclamation; and

7 (B) metallurgical units, including furnaces
8 and hydrometallurgical units, that reclaim met-
9 als from spent petroleum catalyst and inter-
10 mediate products.

11 (3) Clarify that the transfer-based exclusion
12 under section 261.4(a)(24) of title 40, Code of Fed-
13 eral Regulations, can be used when spent petroleum
14 catalyst is sent to a third party for metals reclama-
15 tion.

16 (b) IMPLEMENTATION.—

17 (1) IMMEDIATE EFFECTIVENESS.—Notwith-
18 standing any other provision of law, the final rule
19 promulgated under subsection (a) shall take effect
20 on the date on which the final rule is published in
21 the Federal Register.

22 (2) EXEMPTION.—The rulemaking required
23 under subsection (a) shall be carried out without re-
24 gard to the notice and comment requirements under
25 section 553 of title 5, United States Code.