

**AMENDMENT TO THE AMENDMENT IN THE
NATURE OF A SUBSTITUTE TO H.R. 3534
OFFERED BY MRS. MALONEY OF NEW YORK**

Add at the end the following new title:

1 **TITLE _____—STUDY OF ACTIONS**
2 **TO IMPROVE THE ACCURACY**
3 **OF COLLECTION OF ROYAL-**
4 **TIES**

5 **SEC. ___ 1. SHORT TITLE.**

6 This title may be cited as the “Study of Ways to Im-
7 prove the Accuracy of the Collection of Federal Oil, Con-
8 densate, and Natural Gas Royalties Act of 2009”.

9 **SEC. ___ 2. STUDY OF ACTIONS TO IMPROVE THE ACCU-**
10 **RACY OF COLLECTION OF FEDERAL OIL,**
11 **CONDENSATE, AND NATURAL GAS ROYAL-**
12 **TIES.**

13 The Secretary of the Interior shall seek to enter into
14 an arrangement with the National Academy of Engineer-
15 ing under which the Academy, by not later than six
16 months after the date of the enactment of this Act, shall
17 study and report to the Secretary regarding whether the
18 accuracy of collection of royalties on production of oil, con-
19 densate, and natural gas under leases of Federal lands (in

1 eluding submerged and deep water lands) and Indian
2 lands would be improved by any of the following:

3 (1) Requiring the installation of digital meters,
4 calibrated at least monthly to an absolute zero value,
5 for all lands from which natural gas (including con-
6 densate) is produced under such leases.

7 (2) Requiring that—

8 (A) the size of every orifice plate on each
9 natural gas well operated under such leases be
10 inspected at least quarterly by the Secretary;
11 and

12 (B) chipped orifice plates and wrong-sized
13 orifice plates be replaced immediately after
14 those inspections and reported to the Secretary
15 for retroactive volume measurement corrections
16 and royalty payments with interest of 8 percent
17 compounded monthly.

18 (3) Requiring that any plug valves that are in
19 natural gas gathering lines be removed and replaced
20 with ball valves.

21 (4) Requiring that—

22 (A) all meter runs should be opened for in-
23 spection by the Secretary and the producer at
24 all times; and

1 (B) any welding or closing of the meter
2 runs leading to the orifice plates should be pro-
3 hibited unless authorized by the Secretary.

4 (5) Requiring the installation of straightening
5 vanes approximately 10 feet before natural gas en-
6 ters each orifice meter, including each master meter
7 and each sales meter.

8 (6) Requiring that all master meters be in-
9 spected and the results of such inspections be made
10 available to the Secretary and the producers imme-
11 diately.

12 (7) Requiring that—

13 (A) all sampling of natural gas for heating
14 content analysis be performed monthly up-
15 stream of each natural gas meter, including up-
16 stream of each master meter;

17 (B) records of such sampling and heating
18 content analysis be maintained by the pur-
19 chaser and made available to the Secretary and
20 to the producer monthly;

21 (C) probes for such upstream sampling be
22 installed upstream within three feet of each
23 natural gas meter;

1 (D) any oil and natural gas lease for which
2 heat content analysis is falsified shall be subject
3 to cancellation;

4 (E) natural gas sampling probes be lo-
5 cated—

6 (i) upstream of the natural gas meter
7 at all times;

8 (ii) within a few feet of the natural
9 gas meter; and

10 (iii) after the natural gas goes
11 through a Welker or Y-Z vanishing cham-
12 ber; and

13 (F) temperature probes and testing probes
14 be located between the natural gas sampling
15 probe and the orifice of the natural gas meter.

16 (8) Prohibiting the dilution of natural gas with
17 inert nitrogen or inert carbon dioxide gas for royalty
18 determination, sale, or resale at any point.

19 (9) Requiring that both the measurement of the
20 volume of natural gas and the heating content anal-
21 yses be reported only on the basis of 14.73 PSI and
22 60 degrees Fahrenheit, regardless of the elevation
23 above sea level of such volume measurement and
24 heating content analysis, for both purchases and
25 sales of natural gas.

1 (10) Prohibiting the construction of bypass
2 pipes that go around the natural gas meter, and im-
3 posing criminal penalties for any such construction
4 or subsequent removal including, but not limited to,
5 automatic cancellation of the lease.

6 (11) Requiring that all natural gas sold to con-
7 sumers have a minimum BTU content of 960 at an
8 atmospheric pressure of 14.73 PSI and be at a tem-
9 perature of 60 degrees Fahrenheit, as required by
10 the State of Wyoming Public Utilities Commission.

11 (12) Requiring that all natural gas sold in the
12 USA will be on a MMBTU basis with the BTU con-
13 tent adjusted for elevation above sea level in higher
14 altitudes. Thus all natural gas meters must correct
15 for BTU content in higher elevations (altitudes).

16 (13) Issuance by the Secretary of rules for the
17 measurement at the wellhead of the standard volume
18 of natural gas produced, based on independent in-
19 dustry standards such as those suggested by the
20 American Society of Testing Materials (ASTM).

21 (14) Requiring use of the fundamental orifice
22 meter mass flow equation, as revised in 1990, for
23 calculating the standard volume of natural gas pro-
24 duced.

1 (15) Requiring the use of Fpv in standard vol-
2 ume measurement computations as described in the
3 1992 American Gas Association Report No. 8 enti-
4 tled Compressibility Factor of Natural Gas and
5 Other Related Hydrocarbon Gases.

6 (16) Requiring that gathering lines must be
7 constructed so as to have as few angles and turns
8 as possible, with a maximum of three angles, before
9 they connect with the natural gas meter.

10 (17) Requiring that for purposes of reporting
11 the royalty value of natural gas, condensate, oil, and
12 associated natural gases, such royalty value must be
13 based upon the natural gas' condensate's, oil's, and
14 associated natural gases' arm's length, independent
15 market value, as reported in independent, respected
16 market reports such as Platts or Bloomborgs, and
17 not based upon industry controlled posted prices,
18 such as Koch's.

19 (18) Requiring that royalties be paid on all the
20 condensate recovered through purging gathering
21 lines and pipelines with a cone-shaped device to push
22 out condensate (popularly referred to as a pig) and
23 on condensate recovered from separators, dehydra-
24 tors, and processing plants.

1 (19) Requiring that all royalty deductions for
2 dehydration, treating, natural gas gathering, com-
3 pression, transportation, marketing, removal of im-
4 purities such as carbon dioxide (CO₂), nitrogen (N₂),
5 hydrogen sulphide (H₂S), mercaptain (HS), helium
6 (He), and other similar charges on natural gas, con-
7 densate, and oil produced under such leases that are
8 now in existence be eliminated.

9 (20) Requiring that at all times—

10 (A) the quantity, quality, and value ob-
11 tained for natural gas liquids (condensate) be
12 reported to the Secretary; and

13 (B) such reported value be based on fair
14 independent arm's length market value.

15 (21) Issuance by the Secretary of regulations
16 that prohibit venting or flaring (or both) of natural
17 gas in cases for which technology exists to reason-
18 ably prevent it, strict enforcement of such prohibi-
19 tions, and cancellation of leases for violations.

20 (22) Requiring lessees to pay full royalties on
21 any natural gas that is vented, flared, or otherwise
22 avoidably lost.

23 (23)(A) Requiring payment of royalties on car-
24 bon dioxide at the wellhead used for tertiary oil re-
25 covery from depleted oil fields on the basis of 5 per-

1 cent of the West Texas Intermediate crude oil fair
2 market price to be used for one MCF (1,000 cubic
3 feet) of carbon dioxide gas.

4 (B) Requiring that—

5 (i) carbon dioxide used for edible purposes
6 should be subjected to a royalty per thousand
7 cubic feet (MCF) on the basis of the sales price
8 at the downstream delivery point without de-
9 ducting for removal of impurities, processing,
10 transportation, and marketing costs;

11 (ii) such price to apply with respect to gas-
12 eous forms, liquid forms, and solid (dry ice)
13 forms of carbon dioxide converted to equivalent
14 MCF; and

15 (iii) such royalty to apply with respect to
16 both a direct producer of carbon dioxide and
17 purchases of carbon dioxide from another per-
18 son that is either affiliated or not affiliated with
19 the purchaser.

20 (24) Requiring that—

21 (A) royalties be paid on the fair market
22 value of nitrogen extracted from such leases
23 that is used industrially for well stimulation,
24 helium recovery, or other uses; and

1 (B) royalties be paid on the fair market
2 value of ultimately processed helium recovered
3 from such leases.

4 (25) Allowing only 5 percent of the value of the
5 elemental sulfur recovered during processing of hy-
6 drogen sulfide gas from such leases to be deducted
7 for processing costs in determining royalty pay-
8 ments.

9 (26) Requiring that all heating content analysis
10 of natural gas be conducted to a minimum level of
11 C₁₅.

12 (27) Eliminating artificial conversion from dry
13 BTU to wet BTU, and requiring that natural gas be
14 analyzed and royalties paid for at all times on the
15 basis of dry BTU only.

16 (28) Requiring that natural gas sampling be
17 performed at all times with a floating piston cylinder
18 container at the same pressure intake as the pres-
19 sure of the natural gas gathering line.

20 (29) Requiring use of natural gas filters with a
21 minimum of 10 microns, and preferably 15 microns,
22 both in the intake to natural gas sampling con-
23 tainers and in the exit from the natural gas sam-
24 pling containers into the chromatograph.

1 (30) Mandate the use of a Quad Unit for both
2 portable and stationary chromatographs in order to
3 correct for the presence of nitrogen and oxygen, if
4 any, in certain natural gas streams.

5 (31) Require the calibration of all chro-
6 matograph equipment every three months and the
7 use of only American Gas Association-approved
8 standard comparison containers for such calibration.

9 (32) Requiring payment of royalties on any
10 such natural gas stored on Federal or Indian lands
11 on the basis of corresponding storage charges for the
12 use of Federal or Indian lands, respectively, for such
13 storage service.

14 (33) Imposing penalties for the intentional non-
15 payment of royalties for natural gas liquids recov-
16 ered—

17 (A) from purging of natural gas gathering
18 lines and natural gas pipelines; or

19 (B) from field separators, dehydrators, and
20 processing plants,

21 including cancellation of oil and natural gas leases
22 and criminal penalties.

23 (34) Requiring that the separator, dehydrator,
24 and natural gas meter be located within 100 feet of
25 each natural gas wellhead.

1 (35) Requiring that BTU heating content anal-
2 ysis be performed when the natural gas is at a tem-
3 perature of 140 to 150 degrees Fahrenheit at all
4 times, as required by the American Gas Association
5 (AGA) regulations.

6 (36) Requiring that heating content analysis
7 and volume measurements are identical at the sales
8 point to what they are at the purchase point, after
9 allowing for a small volume for leakage in old pipes,
10 but with no allowance for heating content discrep-
11 ancy.

12 (37) Verification by the Secretary that the spe-
13 cific gravity of natural gas produced under such
14 leases, as measured at the meter run, corresponds to
15 the heating content analysis data for such natural
16 gas, in accordance with the Natural Gas Processors
17 Association Publication 2145-71(1), entitled “Phys-
18 ical Constants Of Paraffin Hydrocarbons And Other
19 Components Of Natural Gas”, and reporting of all
20 discrepancies immediately.

21 (38) Prohibiting all deductions on royalty pay-
22 ments for marketing of natural gas, condensate, and
23 oil by an affiliate or agent.

24 (39) Requiring that all standards of the Amer-
25 ican Petroleum Institute, the American Gas Associa-

1 tion, the Gas Processors Association, and the Amer-
2 ican Society of Testing Materials, Minerals Manage-
3 ment Service Order No. 5, and all other Minerals
4 Management Service orders be faithfully observed
5 and applied, and willful misconduct of such stand-
6 ards and orders be subject to oil and gas lease can-
7 cellation.

8 **SEC. ___ 3. DEFINITIONS.**

9 In this title:

10 (1) COVERED LANDS.—The term “covered
11 lands” means—

12 (A) all Federal onshore lands and offshore
13 lands that are under the administrative jurisdic-
14 tion of the Department of the Interior for pur-
15 poses of oil and gas leasing; and

16 (B) Indian onshore lands.

17 (2) SECRETARY.—The term “Secretary” means
18 the Secretary of the Interior.

