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(Original Signature of Member)

109TH CONGRESS
2D SESSION

H. R. _____

To provide for a study by the National Academy of Engineering regarding improving the accuracy of collection of royalties on production of oil, condensate, and natural gas under leases of Federal lands and Indian lands, and for other purposes.

IN THE HOUSE OF REPRESENTATIVES

Mrs. MALONEY introduced the following bill; which was referred to the Committee on _____

A BILL

To provide for a study by the National Academy of Engineering regarding improving the accuracy of collection of royalties on production of oil, condensate, and natural gas under leases of Federal lands and Indian lands, 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,*

1 **SECTION 1. SHORT TITLE.**

2 This Act may be cited as the “Study of Ways to Im-
3 prove the Accuracy of the Collection of Federal Oil, Con-
4 densate, and Natural Gas Royalties Act of 2006”.

5 **SEC. 2. STUDY OF ACTIONS TO IMPROVE THE ACCURACY**
6 **OF COLLECTION OF FEDERAL OIL, CONDEN-**
7 **SATE, AND NATURAL GAS ROYALTIES.**

8 The Secretary of the Interior shall seek to enter into
9 an arrangement with the National Academy of Engineer-
10 ing under which the Academy, by not later than six
11 months after the date of the enactment of this Act, shall
12 study and report to the Secretary regarding whether the
13 accuracy of collection of royalties on production of oil, con-
14 densate, and natural gas under leases of Federal lands (in-
15 cluding submerged and deep water lands) and Indian
16 lands would be improved by any of the following:

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

21 (2) Requiring that—

22 (A) the size of every orifice plate on each
23 natural gas well operated under such leases be
24 inspected at least quarterly by the Secretary;
25 and

1 (B) chipped orifice plates and wrong-sized
2 orifice plates be replaced immediately after
3 those inspections and reported to the Secretary
4 for retroactive volume measurement corrections
5 and royalty payments with interest of 8 percent
6 compounded monthly.

7 (3) Requiring that any plug valves that are in
8 natural gas gathering lines be removed and replaced
9 with ball valves.

10 (4) Requiring that—

11 (A) all meter runs should be opened for in-
12 spection by the Secretary and the producer at
13 all times; and

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

17 (5) Requiring the installation of straightening
18 vanes approximately 10 feet before natural gas en-
19 ters each orifice meter.

20 (6) Requiring that all master meters be in-
21 spected and the results of such inspections be made
22 available to the Secretary and the producers imme-
23 diately.

24 (7) Requiring that—

1 (A) all sampling of natural gas for heating
2 content analysis be performed monthly up-
3 stream of each natural gas meter, including up-
4 stream of each master meter;

5 (B) records of such sampling and heating
6 content analysis be maintained by the pur-
7 chaser and made available to the Secretary and
8 to the producer monthly;

9 (C) probes for such upstream sampling be
10 installed upstream within three feet of each
11 natural gas meter;

12 (D) any oil and natural gas lease for which
13 heat content analysis is falsified shall be subject
14 to cancellation;

15 (E) natural gas sampling probes be lo-
16 cated—

17 (i) upstream of the natural gas meter
18 at all times;

19 (ii) within a few feet of the natural
20 gas meter; and

21 (iii) after the natural gas goes
22 through a Welker or Y-Z vanishing cham-
23 ber; and

1 (F) temperature probes and testing probes
2 be located between the natural gas sampling
3 probe and the orifice of the natural gas meter.

4 (8)(A) Reinstating the requirement to file Fed-
5 eral Energy Regulatory Commission (FERC) Form
6 16 in April and September of each year for every
7 natural gas pipeline, including each intrastate pipe-
8 lines, in addition to the filing of FERC Form 2.

9 (B) Requiring—

10 (i) use of such FERC Form 2 to create
11 FERC Form 16 data for the years beginning
12 April and September, respectively, 1992, and
13 for each year thereafter; and

14 (ii) filing with the Federal Energy Regu-
15 latory Commission a FERC Form 16 for April
16 and September that is completed with such
17 data back to April 1992.

18 (9) Requiring that administrative jurisdiction
19 over all natural gas gathering lines, interstate pipe-
20 lines, and intrastate pipelines revert immediately to
21 the Federal Energy Regulatory Commission.

22 (10) Prohibiting the dilution of natural gas
23 with inert nitrogen or inert carbon dioxide gas for
24 royalty determination, sale, or resale at any point.

1 (11) Requiring that both the measurement of
2 the volume of natural gas and the heating content
3 analyses be reported only on the basis of 14.72 PSI
4 and 60 degrees Fahrenheit, regardless of the ele-
5 vation above sea level of such volume measurement
6 and heating content analysis, for both purchases and
7 sales of natural gas.

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

13 (13) Requiring that all natural gas sold to con-
14 sumers have a minimum BTU content of 960 at an
15 atmospheric pressure of 14.73 PSI and be at a tem-
16 perature of 60 degrees Fahrenheit, as required by
17 the State of Wyoming Public Utilities Commission.

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

23 (15) Issuance by the Secretary of rules for the
24 measurement at the wellhead of the standard volume
25 of natural gas produced, based on independent in-

1 industry standards such as those suggested by the
2 American Society of Testing Materials (ASTM).

3 (16) Requiring use of the fundamental orifice
4 meter mass flow equation, as revised in 1990, for
5 calculating the standard volume of natural gas pro-
6 duced.

7 (17) Requiring the use of F_{pv} in standard vol-
8 ume measurement computations as described in the
9 1992 American Gas Association Report No. 8 enti-
10 tled Compressibility Factor of Natural Gas and
11 Other Related Hydrocarbon Gases.

12 (18) Requiring that gathering lines must be
13 constructed so as to have as few angles and turns
14 as possible, with a maximum of three angles, before
15 they connect with the natural gas meter.

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

1 (20) Requiring that royalties be paid on all the
2 condensate recovered through purging gathering
3 lines and pipelines with a cone-shaped device to push
4 out condensate (popularly referred to as a pig) and
5 on condensate recovered from separators,
6 dehydrators, and processing plants.

7 (21) Requiring that all royalty deductions for
8 dehydration, treating, natural gas gathering, com-
9 pression, transportation, and other similar charges
10 on natural gas, condensate, and oil produced under
11 such leases that are now in existence be eliminated.

12 (22) Requiring that at all times—

13 (A) the quantity, quality, and value ob-
14 tained for natural gas liquids (condensate) be
15 reported to the Secretary; and

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

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

23 (24) Requiring lessees to pay full royalties on
24 any natural gas that is vented, flared, or otherwise
25 avoidably lost.

1 (25) Requiring payment of royalties on carbon
2 dioxide at the wellhead used for tertiary oil recovery
3 from depleted oil fields and for edible purposes on
4 the basis of 5 percent of the West Texas Inter-
5 mediate crude oil fair market price to be used for
6 one MCF (1,000 cubic feet) of carbon dioxide gas.

7 (26) Requiring that—

8 (A) all carbon dioxide produced from Fed-
9 eral and Indian leases be analyzed for carcino-
10 genic benzene; and

11 (B) benzene produced with such carbon di-
12 oxide must be filtered out and removed safely
13 as necessary to prevent harm to the environ-
14 ment bearing such benzene content to a max-
15 imum permissible level of 5 parts per billion.

16 (27) Requiring that—

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

21 (B) royalties be paid on the fair market
22 value of ultimately processed helium recovered
23 from such leases.

24 (28) Allowing only 5 percent of the value of the
25 elemental sulfur recovered during processing of hy-

1 drogen sulfide gas from such leases to be deducted
2 for processing costs in determining royalty pay-
3 ments.

4 (29) Requiring that all heating content analysis
5 of natural gas be conducted to a minimum level of
6 C₁₅.

7 (30) Eliminating artificial conversion from dry
8 BTU to wet BTU, and requiring that natural gas be
9 analyzed and royalties paid for at all times on the
10 basis of dry BTU only.

11 (31) Requiring that natural gas sampling be
12 performed at all times with a floating piston cylinder
13 container at the same pressure intake as the pres-
14 sure of the natural gas gathering line.

15 (32) Requiring use of natural gas filters with a
16 minimum of 10 microns, and preferably 15 microns,
17 both in the intake to natural gas sampling con-
18 tainers and in the exit from the natural gas sam-
19 pling containers into the chromatograph.

20 (33) Mandate the use of a Quad Unit for both
21 portable and stationary chromatographs in order to
22 correct for the presence of nitrogen and oxygen, if
23 any, in certain natural gas streams.

24 (34) Require the calibration of all chro-
25 matograph equipment every three months and the

1 use of only American Gas Association-approved
2 standard comparison containers for such calibration.

3 (35) Requiring that natural gas stored during
4 the summer period and marketed during the winter
5 period be sold on the basis of the purchase price
6 minus a maximum of \$0.50 per MMBTU storage
7 charges.

8 (36) Requiring payment of royalties on any
9 such natural gas stored on Federal or Indian lands
10 on the basis of corresponding storage charges.

11 (37) Imposing penalties for the intentional non-
12 payment of royalties for natural gas liquids recov-
13 ered—

14 (A) from purging of natural gas gathering
15 lines and natural gas pipelines; or

16 (B) from field separators, dehydrators, and
17 processing plants,

18 including cancellation of oil and natural gas leases
19 and criminal penalties.

20 (38) Requiring that the separator, dehydrator,
21 and natural gas meter be located within 100 feet of
22 each natural gas wellhead.

23 (39) Requiring that BTU heating content anal-
24 ysis be performed when the natural gas is at a tem-

1 perature of 140 to 150 degrees Fahrenheit at all
2 times.

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

9 (41) Requiring that all natural gas produced
10 under such leases be at all times sold to public, in-
11 dustrial, storage, and private customers only on a
12 MMBTU basis of MCF (1000 CF) x MBTU (1000
13 BTU).

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

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

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

10 **SEC. 3. REVIEW OF ROYALTY PAYMENTS.**

11 The Secretary of the Interior, subject to the avail-
12 ability of appropriations, shall award a contract under
13 which the contractor shall—

14 (1) compare royalty payments made under Fed-
15 eral oil and gas lease provisions for covered lands
16 against data supplied to the Federal Energy Regu-
17 latory Commission;

18 (2) make such comparison retroactive to June
19 1, 1974, by integrating existing natural gas analog
20 charts or digital meter results (or both) for each
21 natural gas meter and multiplying the corresponding
22 standard volume results by heating content analysis
23 obtained from corresponding specific gravity meas-
24 urement relationship;

1 (3) determine whether the correct production
2 standard volume and heating content analysis was
3 used to calculate such payments; and

4 (4) determine whether such payments were ade-
5 quate under the terms of such oil and gas leases, by
6 among other procedures comparing the reported roy-
7 alty values with respected published market price re-
8 ports, such as Platts or Bloomberg's.

9 **SEC. 4. DEFINITIONS.**

10 In this Act:

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

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

17 (B) Indian lands.

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