

XVI. ARBITRATION:

16.1 Resolution by Arbitration

Any dispute between Sellers and Buyers touching the construction, meaning or effect of this Extension Agreement, the rights or liabilities of the parties hereunder, or any matter arising out of the same or connected therewith, which cannot be resolved by the parties after discussion in a good faith attempt to reach an amicable solution, shall be resolved in Tokyo, Japan by arbitration in accordance with the Rules of Conciliation and Arbitration of the International Chamber of Commerce before a board of three (3) arbitrators named in accordance with such rules. The parties shall carry out the award of the arbitrators without invoking any immunity, and judgment upon the award rendered may be entered in any court having jurisdiction, or application may be made to such court for a judicial acceptance of the award and an order of enforcement, as the case may be. Any monetary award shall be free of deduction or offset. The parties hereby waive any objection to the award of the arbitrators insofar as is permissible under the laws or treaties of the United States or any of the United States of America or of Japan. The laws of Japan shall be applied by the arbitrators in settling disputes between the parties unless it clearly appears to the arbitrators that other laws should be applied.

XVII. APPROVAL AND AUTHORIZATION OF GOVERNMENTAL REGULATORY BODIES:

17.1 Endeavors to Obtain Approvals and Authorizations

Sellers shall use their best endeavors to obtain forthwith any and all approvals and authorizations required by any legally constituted regulatory bodies of the United States of America and the State of Alaska, or deemed necessary by Sellers to allow Sellers to commence and continue deliveries of LNG to Buyers under the terms and conditions of this Extension Agreement, furnishing Buyers with certified copies of all such governmental approvals and authorizations, together with certified copies of rules, regulations and restrictions promulgated by each and every regulatory body in connection with such approvals and authorizations. Sellers shall also exercise their best endeavors to obtain any other or additional governmental approvals and authorizations of the United States of America or the State of Alaska which may be required from time to time during the term of this Extension Agreement.

Buyers shall use their best endeavors to obtain forthwith all approvals and authorizations, if any are required, by any legally constituted regulatory bodies of Japan, or deemed necessary by Buyers to allow Buyers to commence and continue receipts of LNG under the terms and conditions of this Extension Agreement, furnishing Sellers with certified copies of all such governmental approvals and authorizations, together with certified copies of rules, regulations and restrictions promulgated by each and every regulatory body, if any, in connection with such approvals and authorizations. Buyers shall also exercise their best endeavors to obtain any other or additional governmental approvals and authorizations of Japanese governmental bodies which may be required from time to time during the term of this Extension Agreement.

Either Sellers or Buyers at the request of the other party shall assist by all reasonable means in obtaining such governmental approvals and authorizations. Forthwith upon any such governmental approvals and authorizations being obtained, the party obtaining the same shall notify the other party, and shall advise such party as soon thereafter as is reasonably possible whether such governmental approvals and authorizations are in form acceptable to it and in terms which will enable it to perform its obligations hereunder. Sellers and Buyers shall each notify the other party when all such governmental approvals and authorizations deemed necessary by Sellers and Buyers have been obtained.

If Sellers fail to obtain by December 31, 1989 the necessary governmental approvals and authorizations, Sellers or Buyers may terminate this Extension Agreement at any time thereafter by written notice to the other of their intent to terminate, so long as such notice is given prior to the obtaining of such approvals and authorizations. Further, if any governmental approval or authorization issued imposes terms or conditions unreasonable to Sellers, then Sellers may terminate this Extension Agreement by written notice to Buyers within thirty (30) days after issuance of the said final governmental approval or authorization.

If any governmental approval or authorization issued imposes terms or conditions unreasonable to Buyers or imposes terms or conditions on Sellers which materially affect Sellers' ability to perform as required by this Extension Agreement, then Buyers may terminate this Extension Agreement by written notice to Sellers within thirty (30) days after issuance of the said final governmental approval or authorization.

Both of Sellers or both of Buyers shall act jointly in terminating this Extension Agreement under this Section.

17.2 Liability of Termination

Should either Sellers or Buyers exercise the right under Section 17.1 to terminate this Extension Agreement, the parties exercising the right shall not be liable to the other parties for any losses, damages or expenses incurred by such other parties as a result of the termination of this Extension Agreement.

XVIII. LAWS AND REGULATIONS:

18.1 Laws and Regulations

This Extension Agreement shall be subject to all valid and applicable laws, orders, rules and regulations of governmental authorities having jurisdiction.

XIX. INDEMNITY:

19.1 Injury and Damage Indemnity

While the LNG tanker is being berthed, is berthed or is leaving the berth at Buyers' dock, at Negishi terminal or other Buyers' facilities, Sellers shall defend and indemnify Buyers from any injuries or damages Buyers may suffer as a result of the negligence, willful and malicious acts or omissions of Sellers, their employees, contractors, suppliers of labor or materials or their employees while performing services for Sellers, and Buyers shall defend and indemnify Sellers from any injuries or damages Sellers may suffer as a result of the negligence, willful and malicious acts or omissions of Buyers, their employees, contractors, suppliers of labor or materials or their employees while performing services for Buyers.

19.2 Sellers' Indemnity

Sellers shall defend, indemnify and hold harmless Buyers in, for and against any claims, demands or actions which may be brought against Buyers by any third parties due to or in connection with any personal injuries or property damages which may be suffered by such third parties as a result of the negligence, willful and malicious acts or omissions of Sellers, their employees, contractors, suppliers of labor or materials or their employees while performing services within the scope of this Extension Agreement for Sellers, and any costs, expenses, losses, damages and liability incurred or suffered by Buyers due to or in connection with such claims, demands or actions.

Buyers shall promptly notify Sellers in writing of any claims, demands or actions covered by this Section and shall cooperate with Sellers in the defense of any such claims, demands or actions.

19.3 Buyers' Indemnity

Buyers shall defend, indemnify and hold harmless Sellers in, for and against any claims, demands or actions which may be brought against Sellers by any third parties due to or in connection with any personal injuries or property damages which may be suffered by such third parties as a result of the negligence, willful and malicious acts or omissions of Buyers, their employees, contractors, suppliers of labor or materials or their employees while performing services within the scope of this Extension Agreement for Buyers, and any costs, expenses, losses, damages and liability incurred or suffered by Sellers due to or in connection with such claims, demands or actions.

Sellers shall promptly notify Buyers in writing of any claims, demands or actions covered by this Section and shall cooperate with Buyers in the defense of any such claims, demands or actions.

19.4 No Third Party Beneficiaries

Nothing in this Article XIX or any other provision of this Extension Agreement is intended, expressly or impliedly, to be for the benefit of any third party or to create or confer any rights or remedies on any third party.

XX. ASSIGNMENT:

20.1 Assignment

No party shall be entitled to assign any of its rights and obligations under this Extension Agreement unless it has previously obtained the consent in writing of all the other parties. Such consent shall not be withheld when all the parties agree that the proposed assignee has sufficient capability to perform the obligations under this Extension Agreement to be assigned.

It shall be a condition of any assignment that the assignee shall assume all the rights and obligations of the assignor under this Extension Agreement to be assigned and the assignor shall thereupon be released from all such rights and obligations.

XXI. CONSTRUCTION OF CONTRACT:

21.1 Construction of Contract

This Extension Agreement contains the entire agreement between the parties and supersedes all prior agreements between them on the same subject, and there are no oral promises or representations affecting it. This Extension Agreement may be amended or modified by only written instrument, fully executed by authorized representatives of Sellers and Buyers. Exhibit A (Measurement Procedures) and Exhibit B (Analysis Methods for Determining Impurities Contained in LNG) may be amended or supplemented by written memorandum executed by employees of Sellers and Buyers who are responsible for and have the authority for conducting such measurement procedures and analysis methods.

XXII. NON-WAIVER:

22.1 Non-waiver

The failure of Sellers or Buyers at any time to require performance by the others of any provisions hereof shall in no way affect the right of a party to require any performance which may be due thereafter pursuant to such provision; nor shall the waiver by Sellers or Buyers of any breach of any provision hereof be taken or held to be a waiver of any subsequent breach of such provision.

XXIII. DEFAULT AND TERMINATION OF AGREEMENT:

23.1 Default and Termination of Agreement

Should either Sellers or Buyers default in the performance of any obligation under this Extension Agreement, and such default continues for sixty (60) days after the party not in default has requested in writing the party in default to remedy the default, the party not in default may, in addition to all other rights and remedies, suspend the deliveries or receipts of LNG until the default is remedied, or may cancel and terminate this Extension Agreement by providing thirty (30) days written notice.

XXIV. LANGUAGES:

24.1 Languages

This Extension Agreement shall be made and originals executed in the English and Japanese languages, and the originals executed in both languages shall have the same effect; provided, however, that should either party gives a meaning to any provision of this Extension Agreement as written in one language different to the meaning the other party gives to the same provision as written in the other language, both parties shall attempt in good faith to mutually reconcile and adjust the differences in meaning, but until they have mutually reconciled and adjusted the differences in meaning, the Extension Agreement executed in English shall control.

IN WITNESS WHEREOF, the parties hereto have caused this Extension Agreement to be executed in the manner hereafter appearing.

SELLERS: PHILLIPS 66 NATURAL GAS COMPANY

K. J. Busalleg
President

MARATHON OIL COMPANY

V. G. Begland
President

BUYERS: THE TOKYO ELECTRIC POWER COMPANY, INCORPORATED

那須 邦
President and Director

TOKYO GAS CO., LTD.

渡邊 宏
President and Director



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EXHIBIT A

MEASUREMENT PROCEDURES

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EXHIBIT A
MEASUREMENT PROCEDURES

This Exhibit is attached to and made a part of that certain Liquefied Natural Gas Sale and Purchase Extension Agreement between Phillips 66 Natural Gas Company and Marathon Oil Company, as Sellers, and The Tokyo Electric Power Company, Incorporated and Tokyo Gas Co., Ltd., as Buyers, dated the *17th* day of *June*, 1988.

Sellers and Buyers shall have the right for good reason to request changes to the physical constants, conversion factors, methods and equipment for measurement and analysis herein provided. When such request is made, Sellers and Buyers shall promptly hold mutual discussions in an attempt to agree upon revised constants, conversion factors, methods and equipment.

Furthermore, Sellers and Buyers recognize that Sellers use their best endeavors to replace the LNG tankers currently in service with the new LNG tankers within six (6) years after the signing date of this Extension Agreement under Section 4.1 in this Extension Agreement. If it is considered necessary to review this Exhibit A after the specifications of the new LNG tankers are determined, Sellers and Buyers shall promptly meet and discuss in good faith such review.

I. CALIBRATION OF LNG TANKS:

1.1 Each LNG tank in each LNG tanker currently in service shall be calibrated by an independent surveyor selected jointly by Sellers and Buyers or measurement and testing specialists (measurement specialists) in the industry mutually agreed by Sellers and Buyers. Such calibration shall be in accordance with the standard procedure for petroleum tankage as prescribed in ASTM Method D-1220 or other mutually agreed standard, including any revisions or amendments thereto.

Based upon the measurements so made, the said measurement specialists shall prepare accurate tank tables correlating the tank volume in barrels with the tank depth in hundredths of feet.

During or immediately following each new LNG tanker construction, but prior to loading of the first cargo with each new LNG tanker, each LNG tank in each new LNG tanker shall be calibrated by an independent surveyor selected jointly by Sellers and Buyers. The tank table resulting from the calibration of each LNG tank shall correlate the tank volume using one-thousandth (0.001) cubic meter as the smallest unit with the tank depth using one (1) millimeter as the smallest unit. The tank tables shall clearly indicate the temperature and density of LNG to which they relate and any corrections to be applied for any changes from the reference parameters specified.

1.2 Sellers and Buyers shall each have the right to have representatives be present at the time each LNG tank in each LNG tanker is volumetrically calibrated as provided above.

1.3 If any LNG tank in any of the LNG tankers is internally modified in such a way or suffers damage or distortion of such a nature as to cause a prudent expert to reasonably question the validity of the tank table provided in Section 1.1 (or resulting from any subsequent calibration herein), Sellers or Buyers may require recalibration of such LNG tank in the same manner as provided in Section 1.1 during any period when such LNG tanker shall be out of service. Except as provided in this Section no other recalibration of the LNG tank shall be required.

II. LIQUID LEVEL, TEMPERATURE AND PRESSURE MEASURING EQUIPMENT:

2.1 Each LNG tank in each LNG tanker shall be provided with a main liquid level gauging device especially suited to LNG service and capable of measuring liquid level in this service to within an accuracy equal to or better than plus or minus seven and five-tenths (7.5) millimeters. Each such tank shall also be provided with an auxiliary liquid level gauging device. Prior to Sellers' selecting such main liquid level gauging devices and auxiliary liquid level gauging devices for the new LNG tankers, Sellers shall hold discussions with Buyers regarding the type of such main liquid level gauging devices and auxiliary devices to be provided. Such liquid level gauging devices shall be installed in each tank on the longitudinal axis of the LNG tanker.

2.2 Each LNG tank in each LNG tanker shall be provided with a minimum of four (4) temperature measuring devices. One such measuring device shall be located in the vapor space at the top of each LNG tank, one near the bottom of each LNG tank and the remainder distributed at appropriate intervals from the top to the bottom of each LNG tank. These devices shall be used to determine the average temperatures of LNG and vapor in the LNG tanks, and shall have an accuracy equal to or better than plus or minus two-tenths (0.2) degrees Celsius in the temperature range, minus one hundred sixty-five (-165) degrees to minus one hundred forty-five (-145) degrees Celsius, and an accuracy equal to or better than plus or minus one and five-tenths (1.5) degrees Celsius in the temperature range, minus one hundred forty-five (-145) degrees to plus forty (40) degrees Celsius.

2.3 Each LNG tank in each LNG tanker shall be provided with pressure gauging equipment approved by the parties, capable of determining the pressure of the vapor phase of the LNG tank.

2.4 The liquid level of each LNG tank in each LNG tanker shall be determined by taking ten (10) level readings, or such lesser number as the parties mutually agree as practical, at one (1) minute intervals. An average of these readings shall be the final liquid level of each LNG tank. The procedure described above shall be used for determining liquid levels before and after unloading.

The liquid temperature of each LNG tank before and after unloading shall be determined by averaging the temperature readings of any of the temperature measuring devices to be immersed in the liquid known by the result of liquid level measurement. The vapor temperature of each LNG tank before and after unloading shall be determined by averaging the temperature readings of any of the temperature measuring devices not to be immersed in the liquid known by the result of liquid level measurement. Each LNG tanker shall be provided with a data logging instrument capable of automatically recording in digital form the various readings as described above.

III. SAMPLING AND ANALYSIS PROCEDURES:

3.1 Representative samples of LNG unloaded from an LNG tanker shall be obtained continuously and at a certain rate during the period of stable unloading. Such liquid samples shall be collected in a gasholder from the sampling point installed by Buyers through the vaporizer with an appropriate method not to mix other vapors than sample gas.

Precautions shall be taken to avoid any partial vaporization of the liquid sample before it reaches the vaporizer. Such liquid samples shall be vaporized completely in the vaporizer. The method, location and equipment for sampling and vaporization together with the quantities of samples to be taken shall be agreed between Sellers and Buyers.

After unloading, adequate portions of the gas collected in the gasholder shall be directly transferred to three (3) sample bottles, and these sample bottles shall be distributed as follows: One sample from each set of three (3) shall be analyzed by Buyers during Buyers' normal working hours upon completion of unloading; and one sample from each set of three (3) shall be retained by Buyers for forty-five (45) days or in the event of a dispute between the parties as to the accuracy of the analysis until the dispute is resolved; and the third sample from each set of three (3) shall be returned to Sellers aboard such LNG tanker.

3.2 The gas samples obtained in accordance with Section 3.1 hereof shall be analyzed by Buyers with gas chromatography in conformance with the method described in the N.G.P.A. Standard 2261-72. Duplicate runs shall be made on the samples to determine that repeatabilities of the measurements are either within one (1)

percent of peak area or within one (1) millimeter of peak height of each component. When the repeatabilities are within the above limit, the calculated results of such duplicate runs of analyses shall be averaged.

3.3 The collecting and analyzing of the samples shall be witnessed and verified upon request of Sellers or Buyers by an independent surveyor selected jointly by Sellers and Buyers. Sellers shall have the right to be present when the samples are collected and the analyses are made and shall have the right to require check runs or other tests to ascertain that samples are representative and that the equipment performance is proper and that the composition of the reference standards is accurate.

IV. MEASUREMENT PROCEDURES:

4.1 Immediately prior to unloading each cargo of LNG, by use of the main liquid level gauging device specified in Section 2.1 hereof the liquid level of LNG in each LNG tank in each LNG tanker shall be determined when berthed at Buyers' docking facilities. By use of this liquid level and the appropriate tank table provided in Article I hereof, the total volume of LNG in the LNG tanks shall be determined and recorded.

If the main liquid level gauging device in the LNG tank fails to operate correctly, then Sellers and Buyers shall determine the liquid level by using the auxiliary liquid level gauging device, or shall discuss and agree on whatever other appropriate method which may be available to ascertain the liquid level.

4.2 Through the sampling and analysis procedures provided in Article III hereof, the composition of LNG unloaded shall be determined in mole fractions.

4.3 Immediately following the completion of unloading of LNG from each LNG tanker, the total volume of LNG remaining in the LNG tanks shall be determined and recorded in the same manner as provided in Section 4.1 hereof. The total volume of LNG remaining in the LNG tanks corrected by use of the average temperature of the liquid determined prior to unloading shall be subtracted from the total volume of LNG in the LNG tanks determined prior to unloading. The difference shall be the apparent volume of LNG delivered from the LNG tanker.

4.4 Through use of the temperature measuring devices and pressure gauging equipment specified in Article II hereof, the average temperature of the vapor and the

pressure of the vapor in the LNG tanks shall be calculated upon completion of unloading.

4.5 The following formula shall be used to determine the total quantities of Btu's delivered from Sellers to Buyers.

However, prior to the introduction of the new LNG tankers, Sellers and Buyers shall review the formula to integrate it with the custody transfer equipment on board of the new LNG tankers.

$$Q = \left(B \times \frac{\sum MH}{\sum ML} \right) - \left(5.6146 \times B \times \frac{520}{T} \times \frac{P}{760} \times \frac{\sum MH}{379.495} \right)$$

Where:

Q = Actual quantity of Btu's delivered (per LNG tanker unloaded).

B = Number of barrels of LNG apparently delivered, as described in Section 4.3 hereof.

M = Component mole fraction.

L = Liquid factor for average LNG temperature from Table I.

Liquid factor means liquid volume in barrels occupied by one (1) pound mole at the average temperature of liquid determined before unloading.

H = Gross heat of combustion in Btu's per pound mole from Table 1 hereof.

T = Average temperature of tank vapors in degrees Rankine.

P = Absolute pressure of tank vapors at the time unloading is completed.

The unit of measurement shall be millimeters of mercury.

4.6 Numerical values used in Section 4.5 above shall be treated as follows:

Q : Omit from quantities of Btu's delivered any part of one million (1,000,000) Btu's between one (1) and nine hundred ninety-nine thousand, nine hundred ninety-nine (999,999).

B : Omit from barrels of LNG any fraction of one (1) barrel.

M : Significant figures shall be one-ten thousandth (0.0001) or larger.

L : To pick this number from Table I, use the nearest whole number average temperature in the unit of one (1) degree Fahrenheit. The fractional degrees of the average temperature shall be dropped when they are less than five-tenths (0.5) of one (1) degree and shall be increased to the next whole number when they are five-tenths (0.5) or more.

T : Use the nearest whole number average temperature in the unit of one (1) degree Rankine. The fractional degrees of the average temperature shall be dropped when they are less than five-tenths (0.5) of one (1) degree and shall be increased to the next whole number when they are five-tenths (0.5) or more.

P : Use the value to the nearest unit recorded, expressed in millimeters of mercury.

V. PHYSICAL DATA:

5.1 Basic Physical Factors

A. Gross Heat of Combustion

<u>Component</u>	<u>Btu/pound vapor at 60°F</u>
Methane	23,885
Ethane	22,323
Propane	21,664
Isobutane	21,238
N-butane	21,299
N-pentane	21,088
N-hexane	20,944

Gross Heat of Combustion, Btu/pound mole of component equals Btu/pound times molecular weight.

Source: N.G.P.A. Publication 2145-66

B. Molecular Weight

<u>Component</u>	
Methane	16.042
Ethane	30.068
Propane	44.094
Butanes	58.120
Pentanes	72.146
Hexanes	86.172

Source: N.G.P.A. Publication 2145-66

SCHEDULE A
NITROGEN

EXHIBIT A

TABLE I

(Consisting of Schedules A through I)

LIQUEFIED NATURAL GAS CONVERSION FACTORS

HEATING VALUE: 0.0000 Btu per pound mole

LIQUID FACTORS: Barrels of Liquid at Specified Temperature per
pound mole of Component

<u>Temperature</u> <u>DegreesF</u>	<u>Factor</u> <u>Bbls/PoundMole</u>
-245.0	0.165738
-246.0	0.164830
-247.0	0.163919
-248.0	0.163005
-249.0	0.162091
-250.0	0.161174
-251.0	0.160257
-252.0	0.159339
-253.0	0.158421
-254.0	0.157502
-255.0	0.156585
-256.0	0.155668
-257.0	0.154752
-258.0	0.153837
-259.0	0.152923
-260.0	0.152012
-261.0	0.151102
-262.0	0.150195
-263.0	0.149290
-264.0	0.148388
-265.0	0.147489
-266.0	0.146593
-267.0	0.145700
-268.0	0.144810
-269.0	0.143924
-270.0	0.143042
-271.0	0.142163
-272.0	0.141288
-273.0	0.140418
-274.0	0.139551
-275.0	0.138689

SCHEDULE B
CARBON DIOXIDE

EXHIBIT A

TABLE I

(Consisting of Schedules A through I)

LIQUEFIED NATURAL GAS CONVERSION FACTORS

HEATING VALUE: 0.0000 Btu per pound mole

LIQUID FACTORS: Barrels of Liquid at Specified Temperature per
pound mole of Component

<u>Temperature</u> <u>DegreesF</u>	<u>Factor</u> <u>Bbls/PoundMole</u>
-245.0	0.086301
-246.0	0.086221
-247.0	0.086141
-248.0	0.086061
-249.0	0.085982
-250.0	0.085903
-251.0	0.085824
-252.0	0.085745
-253.0	0.085667
-254.0	0.085588
-255.0	0.085510
-256.0	0.085433
-257.0	0.085355
-258.0	0.085278
-259.0	0.085201
-260.0	0.085124
-261.0	0.085048
-262.0	0.084972
-263.0	0.084895
-264.0	0.084820
-265.0	0.084744
-266.0	0.084669
-267.0	0.084594
-268.0	0.084519
-269.0	0.084444
-270.0	0.084370
-271.0	0.084296
-272.0	0.084222
-273.0	0.084148
-274.0	0.084075
-275.0	0.084001

SCHEDULE C
METHANE

EXHIBIT A

TABLE I

(Consisting of Schedules A through I)

LIQUEFIED NATURAL GAS CONVERSION FACTORS

HEATING VALUE: 383,163 Btu per pound mole

LIQUID FACTORS: Barrels of Liquid at Specified Temperature per
pound mole of Component

<u>Temperature</u> <u>DegreesF</u>	<u>Factor</u> <u>Bbls/PoundMole</u>
-245.0	0.110397
-246.0	0.110189
-247.0	0.109983
-248.0	0.109778
-249.0	0.109576
-250.0	0.109376
-251.0	0.109178
-252.0	0.108981
-253.0	0.108787
-254.0	0.108594
-255.0	0.108403
-256.0	0.108214
-257.0	0.108026
-258.0	0.107840
-259.0	0.107656
-260.0	0.107474
-261.0	0.107293
-262.0	0.107114
-263.0	0.106936
-264.0	0.106760
-265.0	0.106586
-266.0	0.106413
-267.0	0.106242
-268.0	0.106072
-269.0	0.105903
-270.0	0.105736
-271.0	0.105571
-272.0	0.105407
-273.0	0.105244
-274.0	0.105083
-275.0	0.104923

SCHEDULE D
ETHANE

EXHIBIT A

TABLE I

(Consisting of Schedules A through I)

LIQUEFIED NATURAL GAS CONVERSION FACTORS

HEATING VALUE: 671,208 Btu per pound mole

LIQUID FACTORS: Barrels of Liquid at Specified Temperature per
pound mole of Component

<u>Temperature</u> <u>DegreesF</u>	<u>Factor</u> <u>Bbls/PoundMole</u>
-245.0	0.140564
-246.0	0.140447
-247.0	0.140331
-248.0	0.140215
-249.0	0.140099
-250.0	0.139984
-251.0	0.139869
-252.0	0.139754
-253.0	0.139640
-254.0	0.139526
-255.0	0.139412
-256.0	0.139299
-257.0	0.139186
-258.0	0.139073
-259.0	0.138961
-260.0	0.138849
-261.0	0.138737
-262.0	0.138626
-263.0	0.138515
-264.0	0.138404
-265.0	0.138293
-266.0	0.138183
-267.0	0.138073
-268.0	0.137964
-269.0	0.137855
-270.0	0.137746
-271.0	0.137637
-272.0	0.137529
-273.0	0.137421
-274.0	0.137313
-275.0	0.137206

SCHEDULE E
PROPANE

EXHIBIT A

TABLE I

(Consisting of Schedules A through I)

LIQUEFIED NATURAL GAS CONVERSION FACTORS

HEATING VALUE: 955,252 Btu per pound mole

LIQUID FACTORS: Barrels of Liquid at Specified Temperature per
pound mole of Component

<u>Temperature</u> <u>DegreesF</u>	<u>Factor</u> <u>Bbls/PoundMole</u>
-245.0	0.180728
-246.0	0.180596
-247.0	0.180465
-248.0	0.180334
-249.0	0.180203
-250.0	0.180072
-251.0	0.179942
-252.0	0.179812
-253.0	0.179682
-254.0	0.179553
-255.0	0.179423
-256.0	0.179295
-257.0	0.179166
-258.0	0.179038
-259.0	0.178909
-260.0	0.178782
-261.0	0.178654
-262.0	0.178527
-263.0	0.178400
-264.0	0.178273
-265.0	0.178147
-266.0	0.178020
-267.0	0.177895
-268.0	0.177769
-269.0	0.177644
-270.0	0.177518
-271.0	0.177394
-272.0	0.177269
-273.0	0.177145
-274.0	0.177021
-275.0	0.176897

SCHEDULE F
ISOBUTANE

EXHIBIT A

TABLE I

(Consisting of Schedules A through I)

LIQUEFIED NATURAL GAS CONVERSION FACTORS

HEATING VALUE: 1,234,353 Btu per pound mole

LIQUID FACTORS: Barrels of Liquid at Specified Temperature per
pound mole of Component

Temperature <u>DegreesF</u>	Factor <u>Bbls/PoundMole</u>
-245.0	0.225631
-246.0	0.225480
-247.0	0.225330
-248.0	0.225180
-249.0	0.225030
-250.0	0.224881
-251.0	0.224732
-252.0	0.224583
-253.0	0.224434
-254.0	0.224286
-255.0	0.224138
-256.0	0.223990
-257.0	0.223843
-258.0	0.223695
-259.0	0.223548
-260.0	0.223402
-261.0	0.223255
-262.0	0.223109
-263.0	0.222963
-264.0	0.222818
-265.0	0.222672
-266.0	0.222527
-267.0	0.222383
-268.0	0.222238
-269.0	0.222094
-270.0	0.221950
-271.0	0.221806
-272.0	0.221662
-273.0	0.221519
-274.0	0.221376
-275.0	0.221233

SCHEDULE G
N-BUTANE

EXHIBIT A

TABLE I

(Consisting of Schedules A through I)

LIQUEFIED NATURAL GAS CONVERSION FACTORS

HEATING VALUE: 1,237,898 Btu per pound mole

LIQUID FACTORS: Barrels of Liquid at Specified Temperature per
pound mole of Component

Temperature <u>DegreesF</u>	Factor <u>Bbls/PoundMole</u>
-245.0	0.223311
-246.0	0.223178
-247.0	0.223045
-248.0	0.222912
-249.0	0.222780
-250.0	0.222648
-251.0	0.222516
-252.0	0.222384
-253.0	0.222253
-254.0	0.222121
-255.0	0.221990
-256.0	0.221860
-257.0	0.221729
-258.0	0.221599
-259.0	0.221469
-260.0	0.221340
-261.0	0.221210
-262.0	0.221081
-263.0	0.220952
-264.0	0.220823
-265.0	0.220695
-266.0	0.220567
-267.0	0.220439
-268.0	0.220311
-269.0	0.220183
-270.0	0.220056
-271.0	0.219929
-272.0	0.219802
-273.0	0.219676
-274.0	0.219550
-275.0	0.219424

SCHEDULE H
PENTANES

EXHIBIT A

TABLE I

(Consisting of Schedules A through I)

LIQUEFIED NATURAL GAS CONVERSION FACTORS

HEATING VALUE: 1,521,415 Btu per pound mole

LIQUID FACTORS: Barrels of Liquid at Specified Temperature per
pound mole of Component

<u>Temperature</u> <u>DegreesF</u>	<u>Factor</u> <u>Bbls/PoundMole</u>
-245.0	0.264798
-246.0	0.264646
-247.0	0.264494
-248.0	0.264342
-249.0	0.264191
-250.0	0.264039
-251.0	0.263888
-252.0	0.263737
-253.0	0.263587
-254.0	0.263436
-255.0	0.263286
-256.0	0.263136
-257.0	0.262986
-258.0	0.262837
-259.0	0.262687
-260.0	0.262538
-261.0	0.262390
-262.0	0.262241
-263.0	0.262093
-264.0	0.261945
-265.0	0.261797
-266.0	0.261649
-267.0	0.261502
-268.0	0.261354
-269.0	0.261207
-270.0	0.261061
-271.0	0.260914
-272.0	0.260768
-273.0	0.260622
-274.0	0.260476
-275.0	0.260330

SCHEDULE I
HEXANES

EXHIBIT A

TABLE I

(Consisting of Schedules A through I)

LIQUEFIED NATURAL GAS CONVERSION FACTORS

HEATING VALUE: 1,804,786 Btu per pound mole

LIQUID FACTORS: Barrels of Liquid at Specified Temperature per
pound mole of Component

Temperature <u>DegreesF</u>	Factor <u>Bbls/PoundMole</u>
-245.0	0.306225
-246.0	0.306064
-247.0	0.305903
-248.0	0.305743
-249.0	0.305583
-250.0	0.305422
-251.0	0.305263
-252.0	0.305103
-253.0	0.304944
-254.0	0.304784
-255.0	0.304626
-256.0	0.304467
-257.0	0.304308
-258.0	0.304150
-259.0	0.303992
-260.0	0.303834
-261.0	0.303677
-262.0	0.303519
-263.0	0.303362
-264.0	0.303205
-265.0	0.303048
-266.0	0.302892
-267.0	0.302735
-268.0	0.302579
-269.0	0.302423
-270.0	0.302268
-271.0	0.302112
-272.0	0.301957
-273.0	0.301802
-274.0	0.301647
-275.0	0.301492

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EXHIBIT B
ANALYSIS METHODS
FOR DETERMINING IMPURITIES CONTAINED IN LNG

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EXHIBIT B
ANALYSIS METHODS
FOR DETERMINING IMPURITIES CONTAINED IN LNG

This Exhibit is attached to and made a part of that certain Liquefied Natural Gas Sale and Purchase Extension Agreement between Phillips 66 Natural Gas Company and Marathon Oil Company, as Sellers, and The Tokyo Electric Power Company, Incorporated and Tokyo Gas Co., Ltd., as Buyers, dated the 17th day of June, 1988.

Sellers and Buyers shall have the right for good reason to request changes in the test methods and procedures as specified herein. When such request is made, Sellers and Buyers shall promptly hold mutual discussions in an attempt to agree upon revised methods and procedures.

I. SCOPE OF THIS EXHIBIT B:

Analyses of the impurities described in Section 6.3 of this Extension Agreement shall follow the methods and procedures specified herein.

II. SAMPLING AND ANALYSES:

The representative samples of LNG delivered shall be obtained and analyses performed in accordance with the provisions in Sections 3.1 and 3.3 of Exhibit A of this Extension Agreement and sound engineering practices.

Buyers shall maintain and operate suitable equipment and devices for sampling and analyses.

Analyses of the impurities shall follow the methods and procedures specified below:

(a) Hydrogen Sulfide

JIS K2301-1980 Section 6.2.2 (methylene blue absorptiometry method);

(b) Total Sulfur

JIS K2301-1980 Section 6.1.1 (barium perchlorate precipitation titration method, with oxygen-hydrogen flame combustion method).

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