

Trustee) and (c) which have not theretofore been made the basis under any of the provisions of the Mortgage for the authentication and delivery of bonds, the withdrawal of cash or the release of property or the basis of a credit under the provisions of this Section (subject to the provisions of Sections 59 and 61 of the Mortgage, permitting the revocation of the waiver of the right to the authentication and delivery of bonds).

Except as hereinafter specifically prohibited by this paragraph, and notwithstanding any other provisions of this Seventh Supplemental Indenture, (i) the Company shall be permitted from time to time to anticipate in whole or in part the requirements of this Section becoming due on July 1 of the then current year or any subsequent year or years, by depositing cash and/or a principal amount of bonds of the Eighth Series with the Corporate Trustee in full satisfaction or in partial satisfaction of the requirements of this Section, and (ii) any cash deposited under this Section, whether in full satisfaction or in partial satisfaction of the requirements of this Section and whether becoming due on July 1 of the then current year or of a subsequent year, shall be applied by the Corporate Trustee from time to time, as the Company may request,

(1) so long as any bond of the Eighth Series is in bearer form not registered as to principal, to the purchase of bonds of the Eighth Series, at the price or prices most favorable to the Company in the judgment of the Corporate Trustee, at public or private sale and with or without advertising in a Daily Newspaper, printed in the English language, and of general circulation in the Borough of Manhattan, The City of New York, provided, however, that no bonds shall be purchased at such price (including accrued interest and brokerage) that the cost thereof to the Company will exceed the cost of redeeming such bonds on a date forty (40) days after the date of such purchase (including premium, if any, and accrued interest from the interest date next preceding the date of purchase to such redemption date in such cost),

(2) so long as all bonds of the Eighth Series are in fully registered form, or in bearer form registered as to principal, to the purchase of bonds of the Eighth Series, at private sale, provided, however, that the Corporate Trustee, before making any

purchases of bonds as provided in this clause (2), shall by mail notify all registered owners of bonds of the Eighth Series of the amount of cash to be applied to the purchase of such bonds and request tenders of bonds by a specified date, and on or after such date the Corporate Trustee, to the extent, as nearly as is possible, of the cash so to be applied, shall purchase the bonds so tendered at the price or prices most favorable to the Company but not exceeding the maximum price specified above and, if more bonds are offered at any specified price than there is cash then available to purchase the same, the Corporate Trustee shall prorate its purchases of bonds at such price as nearly as may be practicable between the owners of bonds offered at such price in proportion to the principal amounts of bonds of the Eighth Series registered in the names of the owners offering bonds at such price, or

(3) to the redemption of bonds of the Eighth Series;

provided, however, that if moneys in excess of the sum of Fifty Thousand Dollars (\$50,000) deposited with the Corporate Trustee pursuant to this Section (except moneys which theretofore have been set aside to be applied to the purchase of bonds so tendered or to the redemption of bonds called for redemption) shall have remained on deposit for a period of six calendar months, such moneys so remaining on deposit shall promptly thereafter be applied by the Corporate Trustee to the redemption of bonds of the Eighth Series; and provided further that, unless consented to by the holders of a majority in principal amount of bonds of the Eighth Series Outstanding at the time of such consent, the Company may not deposit cash prior to March 1, 1971 in anticipation of the requirements of this Section, if the cash so deposited represents a part of a refunding operation involving, directly or indirectly, the incurring of indebtedness by the Company having a cost (calculated in accordance with acceptable financial practice) lower than five and ninety-four one-hundredths per centum (5.94%) per annum.

For all purposes of the Mortgage (including all calculations thereunder), so long as any bonds of the Eighth Series remain Outstanding, as defined in Section 2 of the Mortgage:

(I) any cash deposited under the provisions of this Section shall be deemed to be Funded Cash;

(II) any bonds of the Eighth Series delivered to the Corporate Trustee pursuant to the provisions of this Section shall, after such delivery, be deemed to have been retired by the use of Funded Cash; and

(III) with respect to all credits taken under this Section on the basis of the purchase or redemption of bonds of the Eighth Series, it shall be deemed that a credit has been taken under the Mortgage on the basis thereof.

Any bonds issued under the Mortgage, delivered to, deposited with or purchased or redeemed by, the Corporate Trustee pursuant to the provisions of this Section, shall forthwith be canceled by the Corporate Trustee.

The Company shall forthwith from time to time on demand of the Corporate Trustee make further payments pursuant to the provisions of this Section on account of accrued interest, brokerage and premium, if any, on bonds of the Eighth Series purchased or redeemed or then to be purchased or redeemed but not in excess of

(AA) the aggregate cost for principal, interest, brokerage and premium, if any, on all bonds theretofore, or then to be, purchased and/or redeemed pursuant to the provisions of this Section

after deducting therefrom

(BB) the aggregate principal amount of all bonds theretofore, and of all bonds then to be, purchased and/or redeemed pursuant to the provisions of this Section plus the aggregate of all such further payments theretofore made pursuant to the provisions of this Section on account of accrued interest, brokerage and/or premium, if any.

ARTICLE III.

Miscellaneous Provisions.

SECTION 3. Subject to the amendments provided for in this Seventh Supplemental Indenture, the terms defined in the Mortgage, as heretofore supplemented, shall, for all purposes of this Seventh

Supplemental Indenture, have the meanings specified in the Mortgage, as heretofore supplemented.

SECTION 4. Section 55 of the Mortgage, as amended, is hereby further amended by inserting the words "and subject to the provisions of Section 2 of the Seventh Supplemental Indenture dated as of March 1, 1966", after the words "January 1, 1964".

SECTION 5. The Trustees hereby accept the trusts hereby declared, provided, created or supplemented, and agree to perform the same upon the terms and conditions herein and in the Mortgage, as heretofore supplemented, set forth, including the following:

The Trustees shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Seventh Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made by the Company solely. In general each and every term and condition contained in Article XVII of the Mortgage shall apply to and form part of this Seventh Supplemental Indenture with the same force and effect as if the same were herein set forth in full, with such omissions, variations and insertions, if any, as may be appropriate to make the same conform to the provisions of the Seventh Supplemental Indenture.

SECTION 6. Whenever in this Seventh Supplemental Indenture any of the parties hereto is named or referred to, this shall, subject to the provisions of Articles XVI and XVII of the Mortgage, be deemed to include the successors or assigns of such party, and all the covenants and agreements in this Seventh Supplemental Indenture contained by or on behalf of the Company or by or on behalf of the Trustees shall bind and inure to the benefit of the respective successors and assigns of such parties whether so expressed or not.

SECTION 7. Nothing in this Seventh Supplemental Indenture, expressed or implied, is intended, or shall be construed, to confer upon, or to give to, any person, firm or corporation, other than the parties hereto and the holders of the bonds and coupons outstanding under the Mortgage, any right, remedy, or claim under or by reason of this Seventh Supplemental Indenture or any covenant, condition, stipulation, promise or agreement hereof, and all the covenants, conditions, stipulations, promises and agreements by or on behalf of the

Company as set forth in this Seventh Supplemental Indenture shall be for the sole and exclusive benefit of the parties hereto, and of the holders of the bonds and of the coupons outstanding under the Mortgage.

SECTION 8. This Seventh Supplemental Indenture has been executed in several identical counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, Northwest Natural Gas Company, party hereto of the first part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by its President or one of its Vice Presidents, and its corporate seal to be attested by its Secretary or one of its Assistant Secretaries for and in its behalf on the 16th day of March, 1966, as of March 1, 1966; Bankers Trust Company, one of the parties hereto of the second part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by one of its Vice Presidents or one of its Assistant Vice Presidents and its corporate seal to be attested by one of its Assistant Secretaries; and J. C. Kennedy, one of the parties hereto of the second part, has hereunto set his hand and affixed his seal, all in The City of New York, on the 16th day of March, 1966, as of March 1, 1966.

NORTHWEST NATURAL GAS COMPANY

[CORPORATE SEAL]

By FRANCIS F. HILL
President.

Attest:

R. G. SCHUUR

Assistant Secretary.

Executed, sealed and delivered by NORTHWEST
NATURAL GAS COMPANY in the presence of:

CARROLL D. FRENCH

RALPH M. McDERMID

BANKERS TRUST COMPANY, as Trustee,

[CORPORATE SEAL]

By G. R. INCE
Vice President.

Attest:

R. I. LANDAU

Assistant Secretary.

Executed, sealed and delivered by BANKERS
TRUST COMPANY in the presence of:

WARREN L. TISCHLER

T. J. MOSKIE

J. C. KENNEDY (L.S.)

J. C. KENNEDY, as Trustee.

Executed, sealed and delivered by J. C.
KENNEDY in the presence of:

WARREN L. TISCHLER

T. J. MOSKIE

STATE OF NEW YORK }
 COUNTY OF NEW YORK } ss.:

March 16th, A. D. 1966.

Before me personally appeared FRANCIS F. HILL, who, being duly sworn, did say that he is President of NORTHWEST NATURAL GAS COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 16th day of March, 1966, before me personally appeared FRANCIS F. HILL, to me known to be President of NORTHWEST NATURAL GAS COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

MORTON BARAD

Notary Public

MORTON BARAD
 NOTARY PUBLIC, State of New York
 No. 24-5170980
 Qualified in Kings County
 Certs. filed in Bronx, Queens, Nassau,
 New York and Westchester Cos.
 Term Expires March 30, 1966
 Residing in Jamaica, N. Y.

[NOTARY'S SEAL]

STATE OF NEW YORK }
 COUNTY OF NEW YORK } ss.:

March 16th, A. D. 1966.

Before me personally appeared G. R. INCE, who, being duly sworn, did say that he is a Vice President of BANKERS TRUST COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 16th day of March, 1966, before me personally appeared G. R. INCE, to me known to be a Vice President of BANKERS TRUST COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

H. VICTOR EVANS

Notary Public

H. VICTOR EVANS
 NOTARY PUBLIC, State of New York
 No. 31-6211900
 Qualified in New York County
 Commission Expires March 30, 1966
 Residing in New York County

[NOTARY'S SEAL]

SUMMARY OF RECORDING DATA

OREGON

<u>County</u>	<u>Date Filed For Record</u>	<u>Real Property Mortgage Records</u>		<u>Financing Statement</u>	
		<u>Book or Reel</u>	<u>Page</u>	<u>Date Filed</u>	<u>File No.</u>
Benton	April 13, 1966	170 - 138		April 13, 1966	4565
Clackamas	April 13, 1966	632 - 336		April 13, 1966	D-1347
Clatsop	April 13, 1966	166 - 326		April 13, 1966	C-2709
Columbia	April 13, 1966	101 - 101		April 14, 1966	D-402
Coos	April 13, 1966	66-4 - 8072		April 13, 1966	C-1717
Douglas	April 13, 1966	370 - 256		April 13, 1966	D-914
Hood River	April 13, 1966	Microfilm No. 660706		April 13, 1966	D-183
Lane	April 13, 1966	316M		April 13, 1966	27571
Lincoln	April 15, 1966	133 - 587		April 15, 1966	D-339
Linn	April 13, 1966	262 - 377		April 13, 1966	B-978
Marion	April 13, 1966	593 - 249		April 13, 1966	D-1749
Multnomah	April 15, 1966	486 - 555		April 15, 1966	D-6840
Polk	April 13, 1966	140 - 162		April 13, 1966	C-429
Tillamook	April 13, 1966	90 - 1		April 13, 1966	1935
Wasco	April 13, 1966	Microfilm No. 660732		April 13, 1966	C-0311
Washington	April 13, 1966	596 - 491		April 13, 1966	D-896
Yamhill	April 13, 1966	52 - 1		April 13, 1966	A-4793
Secretary of State				April 15, 1966	A-78736

(An executed counterpart of the Seventh Supplemental Indenture was filed April 27, 1966 in the office of the Auditor of the City of Portland.)

WASHINGTON

<u>County</u>	<u>Date Filed For Record</u>	<u>Real Property Mortgage Records</u>		<u>Chattel Mortgage Auditor's File No.</u>	
		<u>Book or Reel</u>	<u>Page</u>		
Clark	April 13, 1966	399 - 1			
Clark				April 13, 1966	G-448416
Klickitat	April 13, 1966	98 - 495			
Klickitat				April 13, 1966	122206
Skamania	April 13, 1966	44 - 465			
Skamania				April 13, 1966	666-99

NORTHWEST NATURAL GAS COMPANY

TO

BANKERS TRUST COMPANY

AND

J. C. KENNEDY

(SUCCESSOR TO R. G. PAGE),

**As Trustees under the Mortgage and Deed
of Trust, dated as of July 1, 1946, of
Portland Gas & Coke Company (now
Northwest Natural Gas Company)**

Eighth Supplemental Indenture

Dated as of December 1, 1969

EIGHTH SUPPLEMENTAL INDENTURE

INDENTURE, dated as of the 1st day of December, 1969, made and entered into by and between NORTHWEST NATURAL GAS COMPANY (formerly Portland Gas & Coke Company), a corporation of the State of Oregon, whose post office address is 735 S. W. Morrison Street, Portland, Oregon (hereinafter sometimes called the Company), party of the first part, and BANKERS TRUST COMPANY, a corporation of the State of New York, whose post office address is 16 Wall Street, New York, New York 10015 (hereinafter sometimes called the Corporate Trustee) and J. C. KENNEDY (successor to R. G. Page), whose post office address is 73 Gates Avenue, Montclair, New Jersey (hereinafter sometimes called the Co-Trustee), parties of the second part (the Corporate Trustee and the Co-Trustee being hereinafter together sometimes called the Trustees), as Trustees under the Mortgage and Deed of Trust, dated as of July 1, 1946 (hereinafter called the Mortgage), executed and delivered by Portland Gas & Coke Company (now Northwest Natural Gas Company) to secure the payment of bonds issued or to be issued under and in accordance with the provisions of the Mortgage, this indenture (hereinafter called Eighth Supplemental Indenture) being supplemental thereto;

WHEREAS the Mortgage was or is to be recorded in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Eighth Supplemental Indenture is to be recorded; and

WHEREAS by the Mortgage the Company covenanted that it would execute and deliver such supplemental indenture or indentures and such further instruments and do such further acts as might be necessary or proper to carry out more effectually the purposes of the Mortgage and to make subject to the lien of the Mortgage any property thereafter acquired, made or constructed and intended to be subject to the lien thereof; and

WHEREAS the Company executed and delivered to the Trustees its First Supplemental Indenture, dated as of June 1, 1949 (hereinafter called its First Supplemental Indenture), its Second Supplemental Indenture, dated as of March 1, 1954 (hereinafter called its Second Supplemental Indenture), its Third Supplemental Indenture, dated as of April 1, 1956 (hereinafter called its Third Supplemental Indenture), its Fourth Supplemental Indenture, dated as of February 1, 1959 (hereinafter called its Fourth Supplemental Indenture), its Fifth Supplemental Indenture, dated as of July 1, 1961 (hereinafter called its Fifth Supplemental Indenture), and its Sixth Supplemental Indenture, dated as of January 1, 1964 (hereinafter called its Sixth Supplemental Indenture); and

WHEREAS said First, Second, Third, Fourth, Fifth and Sixth Supplemental Indentures were filed for record, and were recorded and indexed, as a mortgage of both real and personal property, in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Eighth Supplemental Indenture is to be recorded; and

WHEREAS the Company executed and delivered to the Trustees its Seventh Supplemental Indenture, dated as of March 1, 1966 (hereinafter called its Seventh Supplemental Indenture); and

WHEREAS said Seventh Supplemental Indenture was filed for record, and was recorded and indexed, as a mortgage of both real and personal property, and financing statements were filed, in the official records of the several counties and other offices in the States of Oregon and Washington listed below, as follows:

OREGON

County or Secretary of State	Real Property Mortgage Records			Financing Statement	
	Date Filed For Record	Book or Reel	Page	Date Filed	File No.
Benton	April 13, 1966	170 —	138	April 13, 1966	4565
Clackamas	April 13, 1966	632 —	336	April 13, 1966	D-1347
Clatsop	April 13, 1966	166 —	328	April 13, 1966	C-2709
Columbia	April 13, 1966	101 —	101	April 14, 1966	D-402
Coos	April 13, 1966	66-4 —	8072	April 13, 1966	C-1717
Douglas	April 13, 1966	370 —	256	April 13, 1966	D-914
Hood River	April 13, 1966	Microfilm No. 660706		April 13, 1966	D-183
Lane	April 13, 1966	316M		April 13, 1966	27571
Lincoln	April 15, 1966	133 —	587	April 15, 1966	D-339
Linn	April 13, 1966	262 —	377	April 13, 1966	B-978
Marion	April 13, 1966	593 —	249	April 13, 1966	D-1749
Multnomah	April 15, 1966	486 —	555	April 15, 1966	D-6840
Polk	April 13, 1966	140 —	162	April 13, 1966	C-429
Tillamook	April 13, 1966	90 —	1	April 13, 1966	1935
Wasco	April 13, 1966	Microfilm No. 660732		April 13, 1966	C-0311
Washington	April 13, 1966	596 —	491	April 13, 1966	D-893
Yamhill	April 13, 1966	52 —	1	April 13, 1966	A-4793
Secretary of State				April 15, 1966	A-78736
Secretary of State				October 2, 1968	B-39060

(An executed counterpart of the Seventh Supplemental Indenture was filed April 27, 1966 in the office of the Auditor of the City of Portland.)

WASHINGTON

County or Secretary of State	Real Property Mortgage Records			Chattel Mortgage Records		Financing Statement	
	Date Filed For Record	Book or Reel	Page	Auditors File No.	Date Filed	File No.	
Clark	April 13, 1966	399 —	1	G-448416	October 4, 1967	A2236	
Klickitat	April 13, 1966	98 —	495	122206	October 3, 1967	198	
Skamania	April 13, 1966	44 —	465	666-99	October 5, 1967	63	
Secretary of State					October 5, 1967	14484	
Secretary of State					October 2, 1968	44512	

and

WHEREAS an instrument dated as of June 14, 1951, was executed by the Company appointing J. C. Kennedy as Co-Trustee in succession

to said R. G. Page, resigned, under said Mortgage and by J. C. Kennedy accepting the appointment as Co-Trustee under said Mortgage in succession to the said R. G. Page, which instrument was recorded in various counties in the States of Oregon and Washington; and

WHEREAS in addition to the property described in the Mortgage, as heretofore supplemented, the Company has acquired certain other property, rights and interests in property; and

WHEREAS the Company has heretofore issued, in accordance with the provisions of the Mortgage, as supplemented, bonds of a series entitled and designated First Mortgage Bonds, $3\frac{1}{8}\%$ Series due 1976 (hereinafter called the bonds of the First Series), of which Ten Million Dollars (\$10,000,000) in aggregate principal amount are now Outstanding; bonds of a series entitled and designated First Mortgage Bonds, $3\frac{7}{8}\%$ Series due 1974 (hereinafter called the bonds of the Second Series), of which Two Million One Hundred Seventy Thousand Dollars (\$2,170,000) in aggregate principal amount are now Outstanding; bonds of a series entitled and designated First Mortgage Bonds, 4% Series due 1974 (hereinafter called the bonds of the Third Series), none of which bonds of the Third Series are now Outstanding; bonds of a series entitled and designated First Mortgage Bonds, $4\frac{3}{8}\%$ Series due 1976 (hereinafter called the bonds of the Fourth Series), of which Two Million Two Hundred Twelve Thousand Dollars (\$2,212,000) in aggregate principal amount are now Outstanding; bonds of a series entitled and designated First Mortgage Bonds, $5\frac{1}{8}\%$ Series due 1984 (hereinafter called the bonds of the Fifth Series), of which Six Million Eight Thousand Dollars (\$6,008,000) in aggregate principal amount are now Outstanding; bonds of a series entitled and designated First Mortgage Bonds, $5\frac{1}{8}\%$ Series due 1986 (hereinafter called the bonds of the Sixth Series), of which Five Million Eight Hundred Forty Four Thousand Dollars (\$5,844,000) in aggregate principal amount are now Outstanding; bonds of a series entitled and designated First Mortgage Bonds, $4\frac{3}{4}\%$ Series due 1989 (hereinafter called the bonds of the Seventh Series), of which Six Million Seven Hundred Ninety Seven Thousand Dollars (\$6,797,000) in aggregate principal amount are now Outstanding; and bonds of a series entitled and designated First Mortgage Bonds, $5\frac{3}{4}\%$ Series due 1991 (hereinafter called the bonds of the

Eighth Series), of which Fifteen Million Nine Hundred Eighty Thousand Dollars (\$15,980,000) in aggregate principal amount are now Outstanding; and

WHEREAS Section 8 of the Mortgage provides that the form of each series of bonds (other than the First Series) issued thereunder and of the coupons to be attached to the coupon bonds of such series shall be established by Resolution of the Board of Directors of the Company; that the form of such series, as established by said Board of Directors, shall specify the descriptive title of the bonds and various other terms thereof; and that such Series may also contain such provisions not inconsistent with the provisions of the Mortgage as the Board of Directors may, in its discretion, cause to be inserted therein expressing or referring to the terms and conditions upon which such bonds are to be issued and/or secured under the Mortgage; and

WHEREAS Section 120 of the Mortgage provides, among other things, that any power, privilege or right expressly or impliedly reserved to or in any way conferred upon the Company by any provision of the Mortgage, whether such power, privilege or right is in any way restricted or is unrestricted, may (to the extent permitted by law) be in whole or in part waived or surrendered or subjected to any restriction if at the time unrestricted or to additional restriction if already restricted, and the Company may enter into any further covenants, limitations or restrictions for the benefit of any one or more series of bonds issued thereunder, or the Company may cure any ambiguity contained therein or in any supplemental indenture or may (in lieu of establishment by Resolution as provided in Section 8 of the Mortgage) establish the terms and provisions of any series of bonds other than said First Series, by an instrument in writing executed and acknowledged by the Company in such manner as would be necessary to entitle a conveyance of real estate to record in all of the states in which any property at the time subject to the lien of the Mortgage shall be situated; and

WHEREAS the Company now desires to create a new series of bonds and (pursuant to the provisions of Section 120 of the Mortgage) to add to its covenants and agreements contained in the Mortgage, as heretofore supplemented, certain other covenants and agreements to

be observed by it and to alter and amend in certain respects the covenants and provisions contained in the Mortgage, as heretofore supplemented and amended; and

WHEREAS the execution and delivery by the Company of this Eighth Supplemental Indenture, and the terms of the bonds of the Ninth Series hereinafter referred to, have been duly authorized by the Board of Directors of the Company by appropriate resolutions of said Board of Directors;

NOW, THEREFORE, THIS INDENTURE WITNESSETH: That Northwest Natural Gas Company, in consideration of the premises and of One Dollar to it duly paid by the Trustees at or before the ensembling and delivery of these presents, the receipt whereof is hereby acknowledged, and in further assurance of the estate, title and rights of the Trustees, and in order further to secure the payment both of the principal of and interest and premium, if any, on the bonds from time to time issued under the Mortgage, according to their tenor and effect, and the performance of all the provisions of the Mortgage (including any instruments supplemental thereto and any modification made as in the Mortgage provided) and of said bonds, hereby grants, bargains, sells, releases, conveys, assigns, transfers, mortgages, pledges, sets over and confirms (subject, however, to Excepted Encumbrances, as defined in Section 6 of the Mortgage) unto J. C. Kennedy (successor to R. G. Page, as Co-Trustee) and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees under the Mortgage, and to their successor or successors in said trust, and to said Trustees and their successors and assigns forever, all property, real, personal and mixed, acquired by the Company after the date of the Mortgage, of the kind or nature specifically mentioned in Article XXI of the Mortgage or of any other kind or nature (except any herein or in the Mortgage expressly excepted) now owned or, subject to the provisions of subsection (I) of Section 87 of the Mortgage, hereafter acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) and wheresoever situated, including (without in anywise limiting or impairing by the enumeration of the same the scope and intent of the foregoing) all lands, gas plants, by-product

plants, gas holders, gas mains and pipes; all power sites, water rights, reservoirs, canals, raceways, dams, aqueducts, and all other rights or means for appropriating, conveying, storing and supplying water; all rights of way and roads; all plants for the generation of electricity by steam, water and/or other power; all power houses, street lighting systems, standards and other equipment incidental thereto, telephone, radio, television and air-conditioning systems and equipment incidental thereto, water works, water systems, steam heat and hot water plants, substations, lines, service and supply systems, bridges, culverts, tracts, ice or refrigeration plants and equipment, offices, buildings and other structures and the equipment thereof; all machinery, engines, boilers, dynamos, gas, electric and other machines, regulators, meters, transformers, generators, motors, gas, electrical and mechanical appliances, conduits, cables, gas, water, steam heat or other pipes, service pipes, fittings, valves and connections, pole and transmission lines, wires, cables, tools, implements, apparatus, furniture and chattels; all franchises, consents or permits; all lines for the transmission and distribution of gas, electric current, steam heat or water for any purpose including mains, pipes, conduits, towers, poles, wires, cables, ducts and all apparatus for use in connection therewith; all real estate, lands, easements, servitudes, licenses, permits, franchises, privileges, rights of way and other rights in or relating to public or private property, real or personal, or the occupancy of such property and (except as herein or in the Mortgage, as heretofore supplemented, expressly excepted) all right, title and interest the Company may now have or may hereafter acquire in and to any and all property of any kind or nature wheresoever situated.

TOGETHER WITH all and singular the tenements, hereditaments, prescriptions, servitudes and appurtenances belonging or in anywise appertaining to the aforementioned property or any part thereof, with the reversion and reversions, remainder and remainders and (subject to the provisions of Section 57 of the Mortgage) the tolls, rents, revenues, issues, earnings, income, product and profits thereof, and all the estate, right, title and interest and claim whatsoever, at law as well as in equity, which the Company now has or may hereafter acquire in and to the aforementioned property and franchises and every part and parcel thereof.

IT IS HEREBY AGREED by the Company that, subject to the provisions of subsection (I) of Section 87 of the Mortgage, all the property, rights, and franchises acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) after the date hereof, except any herein or in the Mortgage, as heretofore supplemented, expressly excepted, shall be and are as fully granted and conveyed hereby and by the Mortgage, and as fully embraced within the lien hereof and the lien of the Mortgage, as supplemented, as if such property, rights and franchises were now owned by the Company and were specifically described herein or in the Mortgage, as heretofore supplemented, and conveyed hereby or thereby.

Provided that the following are not and are not intended to be now or hereafter granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed hereunder and are hereby expressly excepted from the lien and operation of this Eighth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, viz: (1) cash, shares of stock, bonds, notes and other obligations and other securities not hereafter specifically pledged, paid, deposited, delivered or held under the Mortgage, as heretofore supplemented, or covenanted so to be; (2) merchandise, equipment, apparatus, materials or supplies held for the purpose of sale or other disposition in the usual course of business; fuel, oil and similar materials and supplies consumable in the operation of any of the properties of the Company; all aircraft, tractors, rolling stock, trolley coaches, buses, motor coaches, automobiles, motor trucks, and other vehicles and materials and supplies held for the purpose of repairing or replacing (in whole or part) any of the same; (3) bills, notes and accounts receivable, judgments, demands and choses in action, and all contracts, leases and operating agreements not specifically pledged under the Mortgage, as heretofore supplemented, or covenanted so to be; (4) the last day of the term of any lease or leasehold which may be or become subject to the lien of the Mortgage; (5) gas, petroleum, carbon, chemicals, light oils, tar products, electric energy, steam, water, ice, and other materials or products, manufactured, stored, generated, produced, purchased or acquired by the Company for sale, distribution or use in the ordinary course of its business; all timber, minerals, mineral rights and royalties and all Natural Gas and Oil Production Property, as defined in Section 4 of

the Mortgage; and (6) the Company's franchise to be a corporation; provided, however, that the property and rights expressly excepted from the lien and operation of this Eighth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, in the above subdivisions (2) and (3) shall (to the extent permitted by law) cease to be so excepted in the event and as of the date that either or both of the Trustees or a receiver or trustee shall enter upon and take possession of the Mortgaged and Pledged Property in the manner provided in Article XIII of the Mortgage by reason of the occurrence of a Default as defined in Section 65 thereof.

TO HAVE AND TO HOLD all such properties, real, personal and mixed, granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed by the Company as aforesaid, or intended so to be, unto J. C. Kennedy and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees, and their successors and assigns forever.

IN TRUST NEVERTHELESS, for the same purposes and upon the same terms, trusts and conditions and subject to and with the same provisos and covenants as are set forth in the Mortgage, as heretofore supplemented, this Eighth Supplemental Indenture being supplemental thereto.

AND IT IS HEREBY COVENANTED by the Company that all the terms, conditions, provisos, covenants and provisions contained in the Mortgage, as heretofore supplemented, shall affect and apply to the property hereinbefore described and conveyed, and to the estates, rights, obligations and duties of the Company and the Trustees and the beneficiaries of the trust with respect to said property, and to the Trustees and their successors in the trust, in the same manner and with the same effect as if the said property had been owned by the Company at the time of the execution of the Mortgage, and had been specifically and at length described in and conveyed to said Trustees by the Mortgage as a part of the property therein stated to be conveyed.

The Company further covenants and agrees to and with the Trustees and their successors in said trust under the Mortgage, as follows:

ARTICLE I.

NINTH SERIES OF BONDS.

SECTION 1. There shall be a series of bonds designated "9 $\frac{3}{8}$ % Series due 1974" (herein sometimes referred to as the "Ninth Series"), each of which shall also bear the descriptive title First Mortgage Bond, and the form thereof and of any appurtenant coupons, which shall be established by Resolution of the Board of Directors of the Company, shall contain suitable provisions with respect to the matters hereinafter in this Section specified. Bonds of the Ninth Series shall be limited to \$15,000,000 in aggregate principal amount at any one time Outstanding except as provided in Section 16 of the Mortgage and shall mature on December 1, 1974, and shall be issued as coupon bonds in the denomination of One Thousand Dollars, registrable as to principal, and as fully registered bonds in denominations of One Thousand Dollars and, at the option of the Company, in any multiple or multiples of One Thousand Dollars (the exercise of such option to be evidenced by the execution and delivery thereof); they shall bear interest at the rate of nine and three-eighths per centum (9 $\frac{3}{8}$ %) per annum, payable semi-annually on June 1 and December 1 of each year; and the principal of and interest on each said bond shall be payable at the office or agency of the Company in the Borough of Manhattan, The City of New York, in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts. Coupon bonds of the Ninth Series shall be dated as of December 1, 1969, and fully registered bonds of the Ninth Series shall be dated as in Section 10 of the Mortgage provided.

At the option of the holder, any coupon bonds of the Ninth Series, upon surrender thereof with all unmatured coupons appertaining thereto at the office or agency of the Company in the Borough of Manhattan, The City of New York, shall (subject to the provisions of Section 12 of the Mortgage) be exchangeable for a like aggregate principal amount of fully registered bonds of the same series of authorized denominations. All such coupon bonds to be exchanged as aforesaid shall be in bearer form or, if registered, accompanied by a written instrument of transfer, if required by the Company, duly executed by the registered owner or by his duly authorized attorney. At the option of the registered owner, any fully registered bonds of the Ninth Series, upon surrender thereof, for

cancellation, at said office or agency of the Company, together with a written instrument of transfer, if required by the Company, duly executed by the registered owner or by his duly authorized attorney, shall (subject to the provisions of Section 12 of the Mortgage) be exchangeable for a like aggregate principal amount of coupon bonds of the same series, with all unmatured coupons attached, or for a like aggregate principal amount of fully registered bonds of the same series of other authorized denominations.

The holder of any coupon bond of the Ninth Series may have the ownership thereof registered as to principal at the office or agency of the Company in the Borough of Manhattan, The City of New York, and such registration noted on such bond. After such registration no transfer of such bond shall be valid unless made at said office or agency by the registered owner in person or by his duly authorized attorney and similarly noted on such bond; but (subject to the provisions of Section 12 of the Mortgage) the same may be discharged from registration by being in like manner transferred to bearer and thereupon transferability by delivery shall be restored; but such bond may again from time to time be registered or transferred to bearer in accordance with the above procedure. Such registration, however, shall not affect the negotiability of the coupons appertaining to such bonds, but every such coupon shall continue to be transferable by delivery merely and shall remain payable to bearer. Fully registered bonds of the Ninth Series shall also be transferable (subject to the provisions of Section 12 of the Mortgage) at said office or agency of the Company.

ARTICLE II.

MISCELLANEOUS PROVISIONS.

SECTION 2. Subject to the amendments provided for in this Eighth Supplemental Indenture, the terms defined in the Mortgage, as heretofore supplemented, shall, for all purposes of this Eighth Supplemental Indenture, have the meanings specified in the Mortgage, as heretofore supplemented.

SECTION 3. The Trustees hereby accept the trusts hereby declared, provided, created or supplemented, and agree to perform the same upon the terms and conditions herein and in the Mortgage, as heretofore supplemented, set forth, including the following:

The Trustees shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Eighth Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made by the Company solely. In general each and every term and condition contained in Article XVII of the Mortgage shall apply to and form part of this Eighth Supplemental Indenture with the same force and effect as if the same were herein set forth in full, with such omissions, variations and insertions, if any, as may be appropriate to make the same conform to the provisions of this Eighth Supplemental Indenture.

SECTION 4. Whenever in this Eighth Supplemental Indenture any of the parties hereto is named or referred to, this shall, subject to the provisions of Articles XVI and XVII of the Mortgage, be deemed to include the successors or assigns of such party, and all the covenants and agreements in this Eighth Supplemental Indenture contained by or on behalf of the Company or by or on behalf of the Trustees shall bind and inure to the benefit of the respective successors and assigns of such parties whether so expressed or not.

SECTION 5. Nothing in this Eighth Supplemental Indenture, expressed or implied, is intended, or shall be construed, to confer upon, or to give to, any person, firm or corporation, other than the parties hereto and the holders of the bonds and coupons outstanding under the Mortgage, any right, remedy, or claim under or by reason of this Eighth Supplemental Indenture or any covenant, condition, stipulation, promise or agreement hereof, and all the covenants, conditions, stipulations, promises and agreements by or on behalf of the Company as set forth in this Eighth Supplemental Indenture shall be for the sole and exclusive benefit of the parties hereto, and of the holders of the bonds and of the coupons outstanding under the Mortgage.

SECTION 6. This Eighth Supplemental Indenture has been executed in several identical counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, Northwest Natural Gas Company, party hereto of the first part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by its President or one of its Vice Presidents, and its corporate seal to be attested by its Secretary or one of its Assistant Secretaries; Bankers Trust Company, one of the parties hereto of the second part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by one of its Vice Presidents or one of its Assistant Vice Presidents and its corporate seal to be attested by one of its Assistant Secretaries; and J. C. Kennedy, one of the parties hereto of the second part, has hereunto set his hand and affixed his seal, all in The City of New York, on the 9th day of December, 1969, as of December 1, 1969.

NORTHWEST NATURAL GAS COMPANY

By
President.

Attest:

.....
Assistant Secretary.

Executed, sealed and delivered by NORTHWEST
NATURAL GAS COMPANY in the presence of:

.....
.....

BANKERS TRUST COMPANY, as Trustee,

By
Vice President.

Attest:

.....
Assistant Secretary.

Executed, sealed and delivered by BANKERS
TRUST COMPANY in the presence of:

.....
.....

.....(L.S.)
J. C. KENNEDY, as Trustee.

Executed, sealed and delivered by J. C.
KENNEDY in the presence of:

.....
.....

STATE OF NEW YORK }
 COUNTY OF NEW YORK } SS. :

December 9th, A. D. 1969.

Before me personally appeared FRANCIS F. HILL, who, being duly sworn, did say that he is President of NORTHWEST NATURAL GAS COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 9th day of December, 1969, before me personally appeared FRANCIS F. HILL, to me known to be President of NORTHWEST NATURAL GAS COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

.....
Notary Public

MORTON BARAD
 Notary Public, State of New York
 No. 24-5170980
 Qualified in Kings County
 Certs. filed in Bronx, Queens, Nassau,
 New York and Westchester Cos.
 Term Expires March 30, 1970
 Residing in Jamaica, N. Y.

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss. :

December 9th, A. D. 1969.

Before me personally appeared J. B. PETERSON, who, being duly sworn, did say that he is a Vice President of BANKERS TRUST COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 9th day of December, 1969, before me personally appeared J. B. PETERSON, to me known to be a Vice President of BANKERS TRUST COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

.....
Notary Public

THOMAS A. CONKLIN
Notary Public, State of New York
No. 24-0726340
Qualified in Kings County
Certificate filed in New York County
Commission Expires March 30, 1971

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

December 9th, A. D. 1969.

Before me personally appeared the above-named J. C. KENNEDY and acknowledged the foregoing instrument to be his voluntary act and deed.

On this day personally appeared before me J. C. KENNEDY to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 9th day of December, 1969.

.....
Notary Public

THOMAS A. CONKLIN
Notary Public, State of New York
No. 24-0726340
Qualified in Kings County
Certificate Filed in New York County
Commission Expires March 30, 1971

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

FRANCIS F. HILL, being duly sworn, deposes and says that he is President of NORTHWEST NATURAL GAS COMPANY, the Mortgagor named in the foregoing instrument, and makes this affidavit for and on its behalf; that said instrument is made in good faith, and without any design to hinder, delay, or defraud creditors.

.....
Subscribed and sworn to before me }
this 9th day of December, 1969. }

.....
Notary Public

MORTON BARAD
Notary Public, State of New York
No. 24-5170880
Qualified in Kings County
Certs. filed in Bronx, Queens, Nassau,
New York and Westchester Cos.
Term Expires March 30, 1970
Residing in Jamaica, N. Y.

[CONFORMED COPY]

NORTHWEST NATURAL GAS COMPANY

TO

BANKERS TRUST COMPANY

AND

J. C. KENNEDY

(SUCCESSOR TO R. G. PAGE),

AND

STANLEY BURG

(HEREIN BECOMING SUCCESSOR TO J. C. KENNEDY)

**As Trustees under the Mortgage and Deed
of Trust, dated as of July 1, 1946, of
Portland Gas & Coke Company (now
Northwest Natural Gas Company)**

Ninth Supplemental Indenture

Dated as of April 1, 1971

NINTH SUPPLEMENTAL INDENTURE

INDENTURE, dated as of the 1st day of April, 1971, made and entered into by and between **NORTHWEST NATURAL GAS COMPANY** (formerly Portland Gas & Coke Company), a corporation of the State of Oregon, whose post office address is 735 S. W. Morrison Street, Portland, Oregon 97205 (hereinafter sometimes called the Company), party of the first part, and **BANKERS TRUST COMPANY**, a corporation of the State of New York, whose post office address is P. O. Box 318, Church Street Station, New York, New York 10015 (hereinafter sometimes called the Corporate Trustee) and **J. C. KENNEDY** (successor to R. G. Page), whose post office address is 73 Gates Avenue, Montclair, New Jersey who is hereby resigning as Co-Trustee effective at the close of business on April 27, 1971, and **STANLEY BURG** (successor hereby to R. G. PAGE and J. C. KENNEDY), whose post office address is 2347 Tiebout Avenue, Bronx, New York 10458 who is hereby appointed successor Co-Trustee effective at the close of business on April 27, 1971, parties of the second part (the Corporate Trustee and the Co-Trustee being hereinafter together sometimes called the Trustees), as Trustees under the Mortgage and Deed of Trust, dated as of July 1, 1946 (hereinafter called the Mortgage), executed and delivered by Portland Gas & Coke Company (now Northwest Natural Gas Company) to secure the payment of bonds issued or to be issued under and in accordance with the provisions of the Mortgage, this indenture (hereinafter called Ninth Supplemental Indenture) being supplemental thereto;

WHEREAS the Mortgage was or is to be recorded in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Ninth Supplemental Indenture is to be recorded; and

WHEREAS by the Mortgage the Company covenanted that it would execute and deliver such supplemental indenture or indentures and such further instruments and do such further acts as might be necessary or proper to carry out more effectually the purposes of the Mortgage and to make subject to the lien of the Mortgage any property thereafter acquired, made or constructed and intended to be subject to the lien thereof; and

WHEREAS the Company executed and delivered to the Trustees its First Supplemental Indenture, dated as of June 1, 1949 (hereinafter called its First Supplemental Indenture), its Second Supplemental Indenture, dated as of March 1, 1954 (hereinafter called its Second Supplemental Indenture), its Third Supplemental Indenture, dated as of April 1, 1956 (hereinafter called its Third Supplemental Indenture), its Fourth Supplemental Indenture, dated as of February 1, 1959 (hereinafter called its Fourth Supplemental Indenture), its Fifth Supplemental Indenture, dated as of July 1, 1961 (hereinafter called its Fifth Supplemental Indenture), its Sixth Supplemental Indenture, dated as of January 1, 1964 (hereinafter called its Sixth Supplemental Indenture), and its Seventh Supplemental Indenture, dated as of March 1, 1966 (hereinafter called its Seventh Supplemental Indenture); and

WHEREAS said First through Seventh Supplemental Indentures were filed for record, and were recorded and indexed, as a mortgage of both real and personal property, in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Ninth Supplemental Indenture is to be recorded; and

WHEREAS the Company executed and delivered to the Trustees its Eighth Supplemental Indenture, dated as of December 1, 1969 (hereinafter called its Eighth Supplemental Indenture); and

WHEREAS said Eighth Supplemental Indenture was filed for record, and was recorded and indexed, as a mortgage of both real and personal property, and financing statements were filed, in the official records of the several counties and other offices in the States of Oregon and Washington listed below, as follows:

OREGON

Real Property Mortgage Records

<u>County</u>	<u>Date Filed For Record</u>	<u>Book or Reel</u>	<u>Page</u>
Benton	December 22, 1969	16674	—
Clackamas	December 22, 1969	69-26338	—
Clatsop	December 22, 1969	329	242
Columbia	December 24, 1969	111	722/40
Coos	December 22, 1969	69-12-44746/64	—
Douglas	December 22, 1969	438	283
Hood River	December 22, 1969	691806	—
Lane	December 22, 1969	464R	—
Lincoln	December 22, 1969	16	821
Linn	December 22, 1969	286	493
Marion	December 22, 1969	648	84
Multnomah	December 22, 1969	712	546/64
Polk	December 22, 1969	153	147
Tillamook	December 22, 1969	217	954
Wasco	December 22, 1969	692184 (19)	—
Washington	December 23, 1969	767	57
Yamhill	December 22, 1969	78	36

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed</u>	<u>File Number</u>
Secretary of State	December 18, 1969	13-68031

(An executed counterpart of the Eighth Supplemental Indenture was filed December 18, 1969 in the office of the Auditor of the City of Portland.)

WASHINGTON

Real Property Mortgage Records

<u>County</u>	<u>Date Filed For Record</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Clark	December 22, 1969	399	1
Klickitat	December 22, 1969	102	339-3
Skamania	December 22, 1969	48	53

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed</u>	<u>File Number</u>
Secretary of State	December 18, 1969	81256

and

WHEREAS an instrument dated as of June 14, 1951, was executed by the Company appointing J. C. Kennedy as Co-Trustee in succession to said R. G. Page, resigned, under said Mortgage and by J. C. Kennedy accepting the appointment as Co-Trustee under said Mortgage in succession to the said R. G. Page, which instrument was recorded in various counties in the States of Oregon and Washington; and

WHEREAS in addition to the property described in the Mortgage, as heretofore supplemented, the Company has acquired certain other property, rights and interests in property; and

WHEREAS, the Company has heretofore issued, in accordance with the provisions of the Mortgage, as supplemented, the following series of First Mortgage Bonds:

<u>Series</u>	<u>Principal Amount Outstanding</u>
3½ % Series due 1976.....	\$10,000,000
3¾ % Series due 1974.....	\$ 2,100,000
4 % Series due 1974.....	None
4¾ % Series due 1976.....	\$ 2,190,000
5½ % Series due 1984.....	\$ 5,744,000
5½ % Series due 1986.....	\$ 5,677,000
4¾ % Series due 1989.....	\$ 6,580,000
5¾ % Series due 1991.....	\$15,569,000
9¾ % Series due 1974.....	\$15,000,000;

and

WHEREAS Section 8 of the Mortgage provides that the form of each series of bonds (other than the First Series) issued thereunder shall be established by Resolution of the Board of Directors of the Company; that the form of such series, as established by said Board of Directors, shall specify the descriptive title of the bonds and various other terms thereof; and that such Series may also contain such provisions not inconsistent with the provisions of the Mortgage as the Board of Directors may, in its discretion, cause to be inserted therein expressing or referring to the terms and conditions upon which such bonds are to be issued and/or secured under the Mortgage; and

WHEREAS Section 120 of the Mortgage provides, among other things, that any power, privilege or right expressly or impliedly reserved to or in any

way conferred upon the Company by any provision of the Mortgage, whether such power, privilege or right is in any way restricted or is unrestricted, may (to the extent permitted by law) be in whole or in part waived or surrendered or subjected to any restriction if at the time unrestricted or to additional restriction if already restricted, and the Company may enter into any further covenants, limitations or restrictions for the benefit of any one or more series of bonds issued thereunder, or the Company may cure any ambiguity contained therein or in any supplemental indenture or may (in lieu of establishment by Resolution as provided in Section 8 of the Mortgage) establish the terms and provisions of any series of bonds other than said First Series, by an instrument in writing executed and acknowledged by the Company in such manner as would be necessary to entitle a conveyance of real estate to record in all of the states in which any property at the time subject to the lien of the Mortgage shall be situated; and

WHEREAS the Company now desires to create a new series of bonds and (pursuant to the provisions of Section 120 of the Mortgage) to add to its covenants and agreements contained in the Mortgage, as heretofore supplemented, certain other covenants and agreements to be observed by it and to alter and amend in certain respects the covenants and provisions contained in the Mortgage, as heretofore supplemented and amended; and

WHEREAS the execution and delivery by the Company of this Ninth Supplemental Indenture, and the terms of the bonds of the Tenth Series hereinafter referred to, have been duly authorized by the Board of Directors of the Company by appropriate resolutions of said Board of Directors;

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

That the undersigned J. C. Kennedy hereby gives written notice to the Company that he hereby resigns as Co-Trustee under the Mortgage, such resignation to take effect at the close of business on April 27, 1971, unless previously a successor Co-Trustee shall have been appointed as provided in the Mortgage, in which event such resignation shall take effect immediately on the appointment of such successor Co-Trustee.

That, pursuant to Section 102 of the Mortgage, and by order of its Board of Directors, the undersigned Northwest Natural Gas Company hereby appoints Stanley Burg as successor Co-Trustee under the Mortgage, subject to the conditions in Article XVII thereof expressed, effective at the close of business on April 27, 1971.

That the undersigned Stanley Burg, a citizen of the United States of America, hereby accepts his said appointment by Northwest Natural Gas Company as successor Co-Trustee under the Mortgage and Deed of Trust.

That the undersigned J. C. Kennedy hereby acknowledges receipt of an executed counterpart of this instrument.

That the undersigned Northwest Natural Gas Company will proceed with the publication of the notice of resignation and notice of appointment as provided respectively in Sections 101 and 102 of the Mortgage and Deed of Trust, in substantially the forms provided in Exhibit A hereto annexed.

That Northwest Natural Gas Company, in consideration of the premises and of One Dollar to it duly paid by the Trustees at or before the en sealing and delivery of these presents, the receipt whereof is hereby acknowledged, and in further assurance of the estate, title and rights of the Trustees, and in order further to secure the payment both of the principal of and interest and premium, if any, on the bonds from time to time issued under the Mortgage, according to their tenor and effect, and the performance of all the provisions of the Mortgage (including any instruments supplemental thereto and any modification made as in the Mortgage provided) and of said bonds, hereby grants, bargains, sells, releases, conveys, assigns, transfers, mortgages, pledges, sets over and confirms (subject, however, to Excepted Encumbrances, as defined in Section 6 of the Mortgage) unto J. C. Kennedy (successor to R. G. Page, as Co-Trustee) who is hereby resigning as Co-Trustee effective at the close of business on April 27, 1971 and, effective at the close of business on April 27, 1971, to Stanley Burg (then successor to R. G. Page and J. C. Kennedy) and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees under the Mortgage, and to their successor or successors in said trust, and to said Trustees and their successors and assigns forever, all property, real, personal and mixed, acquired by the Company after the date of the Mortgage, of the kind or nature specifically mentioned in Article XXI of the Mortgage or of any other kind or nature (except any herein or in the Mortgage expressly excepted) now owned or, subject to the provisions of subsection (I) of Section 87 of the Mortgage, hereafter acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) and wheresoever situated, including (without in anywise limiting or impairing by the enumeration of the same the scope and intent of the foregoing) all lands, gas plants, by-product plants, gas holders, gas mains and pipes;

all power sites, water rights, reservoirs, canals, raceways, dams, aqueducts, and all other rights or means for appropriating, conveying, storing and supplying water; all rights of way and roads; all plants for the generation of electricity by steam, water and/or other power; all power houses, street lighting systems, standards and other equipment incidental thereto, telephone, radio, television and air-conditioning systems and equipment incidental thereto, water works, water systems, steam heat and hot water plants, substations, lines, service and supply systems, bridges, culverts, tracts, ice or refrigeration plants and equipment, offices, buildings and other structures and the equipment thereof; all machinery, engines, boilers, dynamos, gas, electric and other machines, regulators, meters, transformers, generators, motors, gas, electrical and mechanical appliances, conduits, cables, gas, water, steam heat or other pipes, service pipes, fittings, valves and connections, pole and transmission lines, wires, cables, tools, implements, apparatus, furniture and chattels; all franchises, consents or permits; all lines for the transmission and distribution of gas, electric current, steam heat or water for any purpose including mains, pipes, conduits, towers, poles, wires, cables, ducts and all apparatus for use in connection therewith; all real estate, lands, easements, servitudes, licenses, permits, franchises, privileges, rights of way and other rights in or relating to public or private property, real or personal, or the occupancy of such property and (except as herein or in the Mortgage, as heretofore supplemented, expressly excepted) all right, title and interest the Company may now have or may hereafter acquire in and to any and all property of any kind or nature wheresoever situated.

TOGETHER WITH all and singular the tenements, hereditaments, prescriptions, servitudes and appurtenances belonging or in anywise appertaining to the aforementioned property or any part thereof, with the reversion and reversions, remainder and remainders and (subject to the provisions of Section 57 of the Mortgage) the tolls, rents, revenues, issues, earnings, income, product and profits thereof, and all the estate, right, title and interest and claim whatsoever, at law as well as in equity, which the Company now has or may hereafter acquire in and to the aforementioned property and franchises and every part and parcel thereof.

IT IS HEREBY AGREED by the Company that, subject to the provisions of subsection (I) of Section 87 of the Mortgage, all the property, rights, and franchises acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) after the date hereof, except any herein or in the Mortgage, as heretofore supplemented, expressly

excepted, shall be and are as fully granted and conveyed hereby and by the Mortgage, and as fully embraced within the lien hereof and the lien of the Mortgage, as supplemented, as if such property, rights and franchises were now owned by the Company and were specifically described herein or in the Mortgage, as heretofore supplemented, and conveyed hereby or thereby.

Provided that the following are not and are not intended to be now or hereafter granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed hereunder and are hereby expressly excepted from the lien and operation of this Ninth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, viz: (1) cash, shares of stock, bonds, notes and other obligations and other securities not hereafter specifically pledged, paid, deposited, delivered or held under the Mortgage, as heretofore supplemented, or covenanted so to be; (2) merchandise, equipment, apparatus, materials or supplies held for the purpose of sale or other disposition in the usual course of business; fuel, oil and similar materials and supplies consumable in the operation of any of the properties of the Company; all aircraft, tractors, rolling stock, trolley coaches, buses, motor coaches, automobiles, motor trucks, and other vehicles and materials and supplies held for the purpose of repairing or replacing (in whole or part) any of the same; (3) bills, notes and accounts receivable, judgments, demands and choses in action, and all contracts, leases and operating agreements not specifically pledged under the Mortgage, as heretofore supplemented, or covenanted so to be; (4) the last day of the term of any lease or leasehold which may be or become subject to the lien of the Mortgage; (5) gas, petroleum, carbon, chemicals, light oils, tar products, electric energy, steam, water, ice, and other materials or products, manufactured, stored, generated, produced, purchased or acquired by the Company for sale, distribution or use in the ordinary course of its business; all timber, minerals, mineral rights and royalties and all Natural Gas and Oil Production Property, as defined in Section 4 of the Mortgage; and (6) the Company's franchise to be a corporation; provided, however, that the property and rights expressly excepted from the lien and operation of this Ninth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, in the above subdivisions (2) and (3) shall (to the extent permitted by law) cease to be so excepted in the event and as of the date that either or both of the Trustees or a receiver or trustee shall enter upon and take possession of the Mortgaged and Pledged Property in the manner provided in Article XIII of the Mortgage by reason of the occurrence of a Default as defined in Section 65 thereof.

To HAVE AND TO HOLD all such properties, real, personal and mixed, granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed by the Company as aforesaid, or intended so to be, unto J. C. Kennedy who is hereby resigning as Co-Trustee effective at the close of business on April 27, 1971, and, effective at the close of business on April 27, 1971, to Stanley Burg (then successor to J. C. Kennedy) and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees, and their successors and assigns forever.

IN TRUST NEVERTHELESS, for the same purposes and upon the same terms, trusts and conditions and subject to and with the same provisos and covenants as are set forth in the Mortgage, as heretofore supplemented, this Ninth Supplemental Indenture being supplemental thereto.

AND IT IS HEREBY COVENANTED by the Company that all the terms, conditions, provisos, covenants and provisions contained in the Mortgage, as heretofore supplemented, shall affect and apply to the property hereinbefore described and conveyed, and to the estates, rights, obligations and duties of the Company and the Trustees and the beneficiaries of the trust with respect to said property, and to the Trustees and their successors in the trust, in the same manner and with the same effect as if the said property had been owned by the Company at the time of the execution of the Mortgage, and had been specifically and at length described in and conveyed to said Trustees by the Mortgage as a part of the property therein stated to be conveyed.

The Company further covenants and agrees to and with the Trustees and their successors in said trust under the Mortgage, as follows:

ARTICLE I.

Tenth Series of Bonds.

SECTION 1. There shall be a series of bonds designated "8 $\frac{3}{4}$ % Series due 1996" (herein sometimes referred to as the "Tenth Series"), each of which shall also bear the descriptive title First Mortgage Bond, and the form thereof, which shall be established by Resolution of the Board of Directors of the Company, shall contain suitable provisions with respect to the matters hereinafter in this Section specified. Bonds of the Tenth Series shall be limited to \$18,000,000 in aggregate principal amount at any one time Outstanding

except as provided in Section 16 of the Mortgage and shall mature on April 1, 1996, and shall be issued as fully registered bonds in denominations of One Thousand Dollars and, at the option of the Company, in any multiple or multiples of One Thousand Dollars (the exercise of such option to be evidenced by the execution and delivery thereof); they shall bear interest at the rate of eight and five-eighths per centum (8 $\frac{5}{8}$ %) per annum, payable semi-annually on October 1 and April 1 of each year; and the principal of and interest on each said bond shall be payable at the office or agency of the Company in the Borough of Manhattan, The City of New York, in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts. Bonds of the Tenth Series shall be dated as in Section 10 of the Mortgage provided.

(I) Bonds of the Tenth Series shall be redeemable either at the option of the Company or pursuant to the requirements of the Mortgage in whole at any time, or in part from time to time, prior to maturity, upon notice, as provided in Section 52 of the Mortgage, mailed at least thirty (30) days prior to the date fixed for redemption, at the following general redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

GENERAL REDEMPTION PRICES

If redeemed during the eight year period ending March 31, 1979,
108.63%.

If redeemed during the 12 months period ending March 31,

1980	105.75%	1989	102.52%
1981	105.40%	1990	102.16%
1982	105.04%	1991	101.80%
1983	104.68%	1992	101.44%
1984	104.32%	1993	101.08%
1985	103.96%	1994	100.72%
1986	103.60%	1995	100.36%
1987	103.24%	1996	100.00%
1988	102.88%		

in each case, together with accrued interest to the date fixed for redemption; provided, however, that no bonds of the Tenth Series may be redeemed pursuant to this subdivision (I) prior to April 1, 1976 as part of any

refunding operation involving, directly or indirectly, the incurring of indebtedness by the Company having a cost (calculated in accordance with acceptable financial practice) lower than 8% per annum.

(II) Bonds of the Tenth Series shall also be redeemable in whole at any time, or in part from time to time, prior to maturity, upon like notice, by the application (either at the option of the Company or pursuant to the requirements of the Mortgage) of cash deposited with the Corporate Trustee pursuant to the provisions of Section 39 or Section 64 of the Mortgage or of Section 2 hereof or with the Proceeds of Released Property; provided, however, that in the case of application of cash deposited with the Corporate Trustee pursuant to the provisions of Section 2 hereof, if the date fixed for such redemption shall be prior to January 1 of the calendar year in which such deposit of cash shall become due under the provisions of Section 2 hereof, they shall be redeemable at the general redemption prices set forth in subdivision (I) of this Section, together with accrued interest to the date fixed for redemption; and provided further, that

(1) in the case of application of cash deposited with the Corporate Trustee pursuant to the provisions of Section 2 hereof if the date fixed for such redemption shall be on or after January 1 of the calendar year in which such deposit of cash shall become due in accordance with the Total Sinking Fund Requirement for said calendar year, or

(2) in the case of redemption by the application of cash deposited with the Corporate Trustee pursuant to the provisions of Section 39 or Section 64 of the Mortgage or with the Proceeds of Released Property,

they shall be redeemable at the following special redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

SPECIAL REDEMPTION PRICES

If redeemed during the 12 months period ending March 31,

1972	100.00%	1977	100.00%
1973	100.00%	1978	100.00%
1974	100.00%	1979	100.00%
1975	100.00%	1980	100.00%
1976	100.00%	1981	100.00%

1982	100.00%	1990	100.00%
1983	100.00%	1991	100.00%
1984	100.00%	1992	100.00%
1985	100.00%	1993	100.00%
1986	100.00%	1994	100.00%
1987	100.00%	1995	100.00%
1988	100.00%	1996	100.00%
1989	100.00%		

in each case, together with accrued interest to the date fixed for redemption.

(III) At the option of the registered owner, any bonds of the Tenth Series, upon surrender thereof, for cancellation, at the office or agency of the Company in the Borough of Manhattan, The City of New York, shall (subject to the provisions of Section 12 of the Mortgage) be exchangeable for a like aggregate principal amount of bonds of the same series of other authorized denominations.

Transfers of bonds of the Tenth Series may be registered (subject to the provisions of Section 12 of the Mortgage) at the office or agency of the Company in the Borough of Manhattan, the City of New York.

Upon any registration of transfer or exchange of bonds of the Tenth Series, the Company may make a charge therefor sufficient to reimburse it for any tax or taxes or other governmental charge, as provided in Section 12 of the Mortgage, but the Company hereby waives any right to make a charge in addition thereto for any registration or exchange or transfer of bonds of the Tenth Series.

ARTICLE II.

Sinking Fund for Bonds of the Tenth Series.

SECTION 2. The Company covenants that, unless all bonds of the Tenth Series shall have ceased to be Outstanding, it will, as a sinking fund for the retirement of bonds of the Tenth Series, deliver to the Corporate Trustee an amount in cash and/or principal amount of bonds of the Tenth Series, on July 1 of each year, beginning with the year 1976 to and including the year 1995, equal to the Total Sinking Fund Requirement for said calendar year. The term Total Sinking Fund Requirement shall mean for any calendar year \$360,000 in cash and/or principal amount of bonds of the Tenth Series

(herein called the "mandatory sinking fund requirement") plus the Optional Sinking Fund Payment, if any, for such calendar year. The term "Optional Sinking Fund Payment" shall mean, for any calendar year, any amount, not in excess of \$360,000 in cash and/or principal amount of bonds of the Tenth Series, that the Company elects to add to the Sinking Fund for such calendar year (herein called the "primary optional payment") provided that if the Company elects not to add any such amount pursuant to this option in any calendar year or shall add an amount less than \$360,000 (the amount by which, in any such calendar year, \$360,000 exceeds the amount so added being herein called the "reserved optional payment"), the Company shall have the right to also add all or any part of the reserved optional payment (to the extent not theretofore so added) to the primary optional payment (and to any other reserved optional payment then being made) in any of the next succeeding five calendar years. At the option of the Company, Optional Sinking Fund Payments may (at any time after they are made) be applied (to the extent not theretofore so applied) in whole or in part from time to time, to reduce mandatory sinking fund requirements for subsequent years upon written notice to the Corporate Trustee.

The Company, at its option (as evidenced by a written order of its Treasurer or an Assistant Treasurer delivered to the Corporate Trustee directing such credit), shall be credited against any of the requirements of this Section with the aggregate principal amount of any bond(s) of the Tenth Series (a) which are not then being and have not theretofore been delivered to meet the requirements of this Section, (b) which have been purchased or redeemed and canceled or for the purchase or redemption of which moneys in the necessary amount shall be held by the Corporate Trustee with irrevocable direction so to apply the same (provided that any such purchase or redemption shall have been, or is to be, effected otherwise than with cash deposited under the provisions of Section 64 of the Mortgage or with cash which, after giving effect to the provisions of Section 61 of the Mortgage, is then deemed to be or to have been Funded Cash, and, in the case of redemption, the notice required therefor shall have been given or have been provided for to the satisfaction of the Corporate Trustee) and (c) which have not theretofore been made the basis under any of the provisions of the Mortgage for the authentication and delivery of bonds, the withdrawal of cash or the release of property or the basis of a credit under the provisions of this Section (subject to the provisions of Sections 59 and 61 of the Mortgage, permitting the revocation of the waiver of the right to the authentication and delivery of bonds).

Except as hereinafter specifically prohibited by this paragraph, and notwithstanding any other provisions of this Ninth Supplemental Indenture, (i) the Company shall be permitted from time to time to anticipate in whole or in part the Total Sinking Fund Requirement becoming due on July 1 of the then current year or the mandatory sinking fund requirement becoming due on July 1 of any subsequent year or years, by depositing cash and/or a principal amount of bonds of the Tenth Series with the Corporate Trustee in full satisfaction or in partial satisfaction of the requirements of this Section, and (ii) any cash deposited under this Section, whether in full satisfaction or in partial satisfaction of the requirements of this Section and whether becoming due on July 1 of the then current year or of a subsequent year, shall be applied by the Corporate Trustee from time to time, as the Company may request, to the purchase of bonds of the Tenth Series, at public or private sale, provided, however, that the Corporate Trustee, before making any purchases of bonds as so provided shall by mail notify all registered owners of bonds of the Tenth Series of the amount of cash to be applied to the purchase of such bonds and request tenders of bonds by a specified date, and on or after such date the Corporate Trustee, to the extent, as nearly as is possible, of the cash so to be applied, shall purchase the bonds so tendered at the price or prices (including accrued interest and brokerage, if any) most favorable to the Company but not exceeding the cost of redeeming such bonds on a date forty (40) days after the date of such purchase (including premium, if any, and accrued interest from the interest date next preceding the date of purchase to such redemption date in such cost), and, if more bonds are offered at any specified price than there is cash then available to purchase the same, the Corporate Trustee shall prorate its purchases of bonds at such price as nearly as may be practicable between the owners of bonds offered at such price in proportion to the principal amounts of bonds of the Tenth Series registered in the names of the owners offering bonds at such price, or to the redemption of bonds of the Tenth Series; provided, however, that if moneys in excess of the sum of Fifty Thousand Dollars (\$50,000) deposited with the Corporate Trustee pursuant to this Section (except moneys which theretofore have been set aside to be applied to the purchase of bonds so tendered or to the redemption of bonds called for redemption) shall have remained on deposit for a period of six calendar months, such moneys so remaining on deposit shall promptly thereafter be applied by the Corporate Trustee to the redemption of bonds of the Tenth Series; and provided further that, unless consented to by the holders of a majority in principal amount of bonds of the Tenth Series Outstanding at the time of such consent, the Company may not deposit cash prior to April 1, 1976 in anticipation of the requirements of this Section, if the cash so

deposited represents a part of a refunding operation involving, directly or indirectly, the incurring of indebtedness by the Company having a cost (calculated in accordance with acceptable financial practice) lower than 8% per annum.

For all purposes of the Mortgage (including all calculations thereunder), so long as any bonds of the Tenth Series remain Outstanding, as defined in Section 2 of the Mortgage:

(I) any cash deposited under the provisions of this Section shall be deemed to be Funded Cash;

(II) any bonds of the Tenth Series delivered to the Corporate Trustee pursuant to the provisions of this Section shall, after such delivery, be deemed to have been retired by the use of Funded Cash; and

(III) with respect to all credits taken under this Section on the basis of the purchase or redemption of bonds of the Tenth Series, it shall be deemed that a credit has been taken under the Mortgage on the basis thereof.

Any bonds issued under the Mortgage, delivered to, deposited with or purchased or redeemed by, the Corporate Trustee pursuant to the provisions of this Section, shall forthwith be canceled by the Corporate Trustee.

The Company shall forthwith from time to time on demand of the Corporate Trustee make further payments pursuant to the provisions of this Section on account of accrued interest, brokerage and premium, if any, on bonds of the Tenth Series purchased or redeemed or then to be purchased or redeemed but not in excess of

(AA) the aggregate cost for principal, interest, brokerage and premium, if any, on all bonds theretofore, or then to be, purchased and/or redeemed pursuant to the provisions of this Section

after deducting therefrom

(BB) the aggregate principal amount of all bonds theretofore, and of all bonds then to be, purchased and/or redeemed pursuant to the provisions of this Section plus the aggregate of all such further payments theretofore made pursuant to the provisions of this Section on account of accrued interest, brokerage and/or premium, if any.

SECTION 3. Section 14 of the Mortgage is hereby amended to read as follows:

"SECTION 14. All bonds authenticated and delivered hereunder shall, from time to time, be executed on behalf of the Company by its President or one of its Vice-Presidents whose signature, except on bonds of the 3½% Series due 1976 and 3¾% Series due 1974, may be facsimile and its corporate seal shall be thereon impressed or imprinted and attested by its Secretary or one of its Assistant Secretaries, whose signature, except on bonds of the 3½% Series due 1976, 3¾% Series due 1974, 4¾% Series due 1976, 5½% Series due 1984, 5½% Series due 1986, 4¾% Series due 1989, 5¾% Series due 1991 and 9¾% Series due 1974, may also be facsimile. The coupons to be attached to coupon bonds shall bear the facsimile signature of the present or any future Treasurer of the Company. In case any of the officers who shall have signed any bonds or attested the seal thereon, or whose facsimile signature appears on any bond or coupon, shall cease to be such officers of the Company before the bonds so signed and/or sealed shall have been actually authenticated and delivered by the Corporate Trustee or issued by the Company, such bonds nevertheless may be authenticated, delivered and/or issued with the same force and effect as though the person or persons who signed such bonds and/or attested the seal thereon and/or whose facsimile signature appears on any bond or coupon had not ceased to be such officer or officers of the Company. Before authenticating any coupon bonds, the Corporate Trustee shall cut off and cancel all matured coupons thereto attached (except as otherwise provided or permitted in Sections 12 and 16 hereof)."

ARTICLE III.

Miscellaneous Provisions.

SECTION 4. Subject to the amendments provided for in this Ninth Supplemental Indenture, the terms defined in the Mortgage, as heretofore supplemented, shall, for all purposes of this Ninth Supplemental Indenture, have the meanings specified in the Mortgage, as heretofore supplemented.

SECTION 5. Section 55 of the Mortgage, as amended, is hereby further amended by inserting the words "and subject to the provisions of Section 2

of the Ninth Supplemental Indenture dated as of April 1, 1971," after the words "March 1, 1966".

SECTION 6. The Company reserves the right, without any consent or other action by holders of bonds of the Tenth Series or of any subsequently created series, to amend Article XIX of the Mortgage, as supplemented, to read as follows:

"ARTICLE XIX.

"MEETINGS AND CONSENTS OF BONDHOLDERS.

"SECTION 107. Modifications and alterations of this Indenture and/or of any indenture supplemental hereto and/or of the rights and obligations of the Company and/or of the rights of the holders of bonds and coupons issued hereunder may be made as provided in this Article XIX.

"SECTION 108. The Corporate Trustee may at any time call a meeting of the bondholders entitled to vote on the matters to be considered at such meeting and it shall call such a meeting on written request of the holders of not less than a majority in principal amount of the bonds Outstanding hereunder (determined as provided in Section 71 hereof) at the time of such request. The Company, pursuant to a Resolution of its Board of Directors, may also call a meeting of the bondholders at any time. In each case the purpose or purposes of such meeting shall be set forth in reasonable detail. In the event of the Corporate Trustee's failing for ten (10) days to call a meeting after being thereunto requested by the bondholders as above set forth, holders of Outstanding bonds in the amount above specified in this Section or the Company, pursuant to Resolution of its Board of Directors, may call such meeting. Every such meeting called by and at the instance of the Corporate Trustee shall be held in the Borough of Manhattan, The City of New York, or with the written approval of the Company, at any other place in the United States of America, and written notice thereof, stating the place and time thereof and in general terms the business to be submitted, shall be mailed by the Corporate Trustee not less than thirty (30) days before such meeting (a) to all holders of bonds the names and addresses of whom are then preserved as required by Section 43 hereof, and (b) to the Company

addressed to it at 735 S. W. Morrison Street, Portland, Oregon (or at such other address as may be designated by the Company from time to time), and, unless all Outstanding bonds entitled to vote are fully registered or are registered as to principal, shall be published by the Corporate Trustee once on at least four different days preceding the meeting, in a Daily Newspaper, printed in the English language, and of general circulation in the Borough of Manhattan, The City of New York, the first publication to be not less than twenty (20) days prior to the date of such meeting; provided, however, that, if notice is given by publication as aforesaid, then the mailing of such notice to any bondholder shall in no case be a condition precedent to the validity of any action taken at such meeting. If such meeting is called by or at the instance either of the Company or of the bondholders, it shall be held at such place in the United States of America as may be specified in the notice calling such meeting and notice thereof shall be sufficient for all purposes hereof if given by newspaper publication as aforesaid stating the place and time of the meeting and in general terms the business to be submitted. Any meeting of bondholders shall be valid without notice if the holders of all bonds then Outstanding hereunder are present in person or by proxy and if the Company and the Corporate Trustee are present by duly authorized representatives, or if notice is waived in writing before or after the meeting by the Company, the holders of all bonds Outstanding hereunder and by the Corporate Trustee, or by such of them as are not present in person or by proxy.

"SECTION 109. Officers and nominees of the Corporate Trustee and of the Company and of the Co-Trustee or their or its nominees may attend such meeting, but shall not as such be entitled to vote thereat. Attendance by bondholders may be in person or by proxy. In order that the holder of any bond payable to bearer and his proxy may attend and vote without producing his bond, the Corporate Trustee, with respect to any such meeting, may make and from time to time vary such regulations as it shall think fit for deposit of bonds with, (i) any bank, or trust or insurance company, or (ii) any trustee, secretary, administrator or other proper officer of any pension, welfare, hospitalization, or similar fund or funds, or (iii) the United States of America, any Territory thereof, the District of Columbia, any State of the United

States, any municipality in any State or Territory of the United States or any public instrumentality of the United States, any State or Territory, or (iv) any other person or corporation satisfactory to the Corporate Trustee, and for the issue to the persons depositing the same of certificates by such depositaries entitling the holders thereof to be present and vote at any such meeting and to appoint proxies to represent them and vote for them at any such meeting in the same way as if the persons so present and voting, either personally or by proxy, were the actual bearers of the bonds in respect of which such certificates shall have been issued and any regulations so made shall be binding and effective. A bondholder in any of the foregoing categories may sign such a certificate in his own behalf. In lieu of or in addition to providing for such deposit, the Corporate Trustee may, in its discretion, permit such institutions to issue certificates stating that bonds were exhibited to them, which certificates shall entitle the holders thereof to vote at any meeting only if the bonds with respect to which they are issued are not produced at the meeting by any other person and are not at the time of the meeting registered in the name of any other person. Each such certificate shall state the date on which the bond or bonds in respect of which such certificate shall have been issued were deposited with or exhibited to such institution and the series, maturities and serial numbers of such bonds. A bondholder in any of the foregoing categories may sign such a certificate in his own behalf. In the event that two or more such certificates shall be issued with respect to any bond or bonds, the certificate bearing the latest date shall be recognized and be deemed to supersede any certificate or certificates previously issued with respect to such bond or bonds. If any such meeting shall have been called, under the provisions of Section 108 hereof, by bondholders or by the Company, regulations to like effect for such deposit or exhibition of bonds and the issue of certificates by (i) any bank or trust or insurance company, or (ii) any trustee, secretary, administrator or other proper officer of any pension, welfare, hospitalization, or similar fund or funds, or (iii) by the United States of America, any Territory thereof, the District of Columbia, any State of the United States, any municipality in any State or Territory of the United States or any public instrumentality of the United States, any State or Territory shall be similarly binding and effective for all purposes hereof if adopted or approved by the bondholders calling such meeting or by the Board of Directors of the Company, if such meeting

shall have been called by the Company, provided that in either such case copies of such regulations shall be filed with the Corporate Trustee. A bondholder in any of the foregoing categories may sign such a certificate in his own behalf.

"SECTION 110. Subject to the restrictions specified in Sections 109 and 113 hereof, any registered holder of bonds Outstanding hereunder and any holder of a certificate (not superseded) provided for in Section 109 hereof, shall be entitled in person or by proxy to attend and vote at such meeting as holder of the bonds registered or certified in the name of such holder without producing such bonds. All others seeking to attend or vote at such meeting in person or by proxy must, if required by any authorized representative of the Corporate Trustee or the Company or by any other bondholder, produce the bonds claimed to be owned or represented at such meeting, and everyone seeking to attend or vote shall, if required as aforesaid, produce such further proof of bond ownership or personal identity as shall be satisfactory to the authorized representative of the Corporate Trustee, or if none be present then to the Inspectors of Votes hereinafter provided for. Proxies shall be witnessed or in the alternative may (a) have the signature guaranteed by a bank or trust company or a registered dealer in securities, (b) be acknowledged before a Notary Public or other officer authorized to take acknowledgments, or (c) have their genuineness otherwise established to the satisfaction of the Inspectors of Votes. All proxies and certificates presented at any meeting shall be delivered to said Inspectors of Votes and filed with the Corporate Trustee.

"SECTION 111. Persons nominated by the Corporate Trustee, if it is represented at the meeting, shall act as temporary Chairman and Secretary, respectively, of the meeting, but if the Corporate Trustee shall not be represented or shall fail to nominate such persons or if any person so nominated shall not be present, the bondholders and proxies present shall by a majority vote, irrespective of the amount of their holdings, elect another person or other persons from those present to act as temporary Chairman and/or Secretary. A permanent Chairman and a permanent Secretary of such meeting shall be elected from those present by the bondholders and proxies present by a majority vote of bonds repre-

sented. The Corporate Trustee, if represented at the meeting, shall appoint two Inspectors of Votes who shall decide as to the right of anyone to vote and shall count all votes cast at such meeting, except votes on the election of a Chairman and Secretary, both temporary and permanent, as aforesaid, and who shall make and file with the permanent Secretary of the meeting their verified written report in duplicate of all such votes so cast at said meeting. If the Corporate Trustee shall not be represented at the meeting or shall fail to nominate such Inspectors of Votes or if either Inspector of Votes fails to attend the meeting, the vacancy shall be filled by appointment by the permanent Chairman of the meeting.

"SECTION 112. The holders of not less than sixty-six and two-thirds per centum ($66\frac{2}{3}\%$) in principal amount of the bonds Outstanding hereunder when such meeting is held must be present at such meeting in person or by proxy in order to constitute a quorum for the transaction of business, less than a quorum, however, having power to adjourn.

"SECTION 113. Subject to the provisions of Sections 71 and 80 hereof, any modification or alteration of this Indenture and/or of any indenture supplemental thereto and/or of the rights and obligations of the Company and/or the rights of the holders of bonds and/or coupons issued hereunder in any particular, may be made at a meeting of bondholders duly convened and held in accordance with the provisions of this Article, but only by resolution duly adopted by the affirmative vote of the holders of sixty-six and two-thirds per centum ($66\frac{2}{3}\%$) or more in principal amount of the bonds Outstanding hereunder, and, if the rights of one or more, but less than all, series of bonds then Outstanding are to be affected by action taken at such meeting, then also by affirmative vote of the holders of at least sixty-six and two-thirds per centum ($66\frac{2}{3}\%$) in principal amount of each series of bonds so to be affected and Outstanding hereunder, when such meeting is held, and in every case approved by Resolution of the Board of Directors of the Company as hereinafter specified; provided, however, that no such modification or alteration shall, without the consent of the holder of any bond issued hereunder affected thereby, (1) impair or affect the right of such holder to receive payment of the principal of (and premium, if any) and interest on such bond, on or after the respective due dates expressed in such bond, or to institute suit for the enforcement of any such payment

on or after such respective dates, or (2) permit the creation of any lien ranking prior to, or on a parity with, the Lien of this Indenture with respect to any of the Mortgaged and Pledged Property, or (3) permit the deprivation of any non-assenting bondholder of a lien upon the Mortgaged and Pledged Property for the security of his bonds (subject only to the lien of taxes, assessments or governmental charges not then delinquent and to any mortgage or other liens existing upon such property which are prior hereto at the date of the calling of any such bondholders' meeting), or (4) permit the reduction of the percentage required by the provisions of this Section for the taking of any action under this Section with respect to any bond Outstanding hereunder. For all purposes of this Article, the Trustees, subject to the provisions of Sections 88 and 89 hereof, shall be entitled to rely upon an Opinion of Counsel with respect to the extent, if any, as to which any action taken at such meeting affects the rights under this Indenture or under any indenture supplemental hereto of any holders of bonds then Outstanding hereunder.

"Except for the purpose of waiving any past Default, as defined in Section 65 hereof, of the Company and the consequences thereof, in which event the provisions of Section 71 hereof shall be applicable, bonds owned and/or held by and/or for account of and/or for the benefit or interest of the Company, or any corporation of which the Company shall own twenty-five per centum (25%) or more of the outstanding voting stock, shall not be deemed Outstanding for the purpose of any vote or of any calculation of bonds Outstanding in this Article XIX provided for, except that, subject to the provisions of Sections 88 and 89 hereof, for the purpose of determining whether the Trustees, or either of them, shall be protected in relying on any such vote or calculation, only bonds which the Trustees, or either of them, know are so owned and/or held, shall be excluded.

"SECTION 114. A record in duplicate of the proceedings of each meeting of bondholders shall be prepared by the permanent Secretary of the meeting and shall have attached thereto the original reports of the Inspectors of Votes, and affidavits by one or more persons having knowledge of the facts showing a copy of the notice of the meeting, and showing that said notice was mailed and published as provided

in Section 108 hereof. Such record shall be signed and verified by the affidavits of the permanent Chairman and the permanent Secretary of the meeting, and one duplicate thereof shall be delivered to the Company and the other to the Corporate Trustee for preservation by the Corporate Trustee. Any record so signed and verified shall be proof of the matters therein stated, and if such record shall also be signed and verified by the affidavit of a duly authorized representative of the Corporate Trustee, such meeting shall be deemed conclusively to have been duly convened and held and such record shall be conclusive, and any resolution or proceeding stated in such record to have been adopted or taken, shall be deemed conclusively to have been duly adopted or taken by such meeting. A true copy of any resolution adopted by such meeting shall be mailed by the Corporate Trustee to all holders of bonds Outstanding hereunder, the names and addresses of whom are then preserved by the Corporate Trustee pursuant to the provisions of Section 43 hereof, and proof of such mailing by the affidavit of some person having knowledge of the fact shall be filed with the Corporate Trustee, but failure to mail copies of such resolution as aforesaid shall not affect the validity thereof. No such resolution shall be binding until and unless such resolution is approved by Resolution of the Board of Directors of the Company, and it shall be the duty of the Company to file a copy of such Resolution of approval, if any, certified by the Secretary or an Assistant Secretary of the Company with the Corporate Trustee, but if such Resolution of the Board of Directors of the Company is adopted and a certified copy thereof is filed with the Corporate Trustee, the resolution so adopted by such meeting shall (to the extent permitted by law) be deemed conclusively to be binding upon the Company, the Trustees and the holders of all bonds and coupons issued hereunder, at the expiration of sixty (60) days after such filing, except in the event of a final decree of a court of competent jurisdiction setting aside such resolution, or annulling the action taken thereby in a legal action or equitable proceeding for such purposes commenced within such sixty (60) day period; provided, however, that no such resolution of the bondholders, or Resolution of the Company, shall in any manner change or modify or be so construed as to change or modify any of the rights, immunities, or obligations of the Trustees or either of them without their, its or his written assent thereto.

"SECTION 115. Bonds authenticated and delivered after the date of any bondholders' meeting may bear a notation in form approved by the Corporate Trustee as to the action taken at meetings of bondholders theretofore held, and upon demand of the holder of any bond Outstanding at the date of any such meeting and presentation of his bond for the purpose at the principal office of the Corporate Trustee, the Company shall cause suitable notation to be made on such bond by endorsement or otherwise as to any action taken at any meeting of bondholders theretofore held. If the Company or the Corporate Trustee shall so determine, new bonds so modified as in the opinion of the Corporate Trustee and the Board of Directors of the Company to conform to such bondholders' resolution shall be prepared, authenticated and delivered, and upon demand of the holder of any bond then Outstanding and affected thereby shall be exchanged without cost to such bondholder for bonds then Outstanding hereunder upon surrender of such bonds with all unmatured coupons, if any, appertaining thereto. The Company or the Corporate Trustee may require bonds Outstanding to be presented for notation or exchange as aforesaid if either shall see fit to do so. Instruments supplemental to this Indenture embodying any modification or alteration of this Indenture or of any indenture supplemental hereto made at any bondholders' meeting, and approved by Resolution of the Board of Directors of the Company, as aforesaid, may be executed by the Trustees and the Company and upon demand of the Corporate Trustee, or if so specified in any resolution adopted by any such bondholders' meeting, shall be executed by the Company and the Trustees.

"Any instrument supplemental to this Indenture executed pursuant to the provisions of this Section, shall comply with all applicable provisions of the Trust Indenture Act of 1939 as in force on the date of the execution of such supplemental indenture.

"SECTION 116. (A) Anything in this Article contained to the contrary notwithstanding, the Corporate Trustee shall receive the written consent (in any number of instruments of similar tenor executed by bondholders or by their attorneys appointed in writing) of the holders of sixty-six and two-thirds per centum ($66\frac{2}{3}\%$) or more in principal amount of the bonds Outstanding hereunder, and, if the rights of one or more, but less than all, series of bonds then Outstanding are to be affected by action taken pursuant to such consent, then also the written

consent of the holders of at least sixty-six and two-thirds per centum (66 $\frac{2}{3}$ %) in principal amount of each series of bonds so to be affected and Outstanding hereunder (at the time the last such needed consent is delivered to the Corporate Trustee) in lieu of the holding of a meeting pursuant to this Article and in lieu of all action at such a meeting and with the same force and effect as a resolution duly adopted in accordance with the provisions of Section 113 hereof.

"(B) Instruments of consent shall be witnessed or in the alternative may (a) have the signature guaranteed by a bank or trust company or a registered dealer in securities, (b) be acknowledged before a Notary Public or other officer authorized to take acknowledgments, or (c) have their genuineness otherwise established to the satisfaction of the Corporate Trustee.

"The amount of bonds payable to bearer, and the series and serial numbers thereof, held by a person executing an instrument of consent (or whose attorney has executed an instrument of consent in his behalf), and the date of his holding the same, may be proved either by exhibiting the bonds themselves to the Corporate Trustee or by a certificate executed (i) by any bank or trust or insurance company, (ii) by any trustee, secretary, administrator or other proper officer of any pension, welfare, hospitalization or similar fund, (iii) by the United States of America, any Territory thereof, the District of Columbia, any State of the United States, any municipality in any State or Territory of the United States or any public instrumentality of the United States, any State or Territory, or (iv) by any other person or corporation satisfactory to the Corporate Trustee. A bondholder in any of the foregoing categories may sign a certificate in his own behalf.

"Each such certificate shall be dated and shall state in effect that as of the date thereof a coupon bond or bonds of a specified series and bearing a specified serial number or numbers was deposited with or exhibited to the signer of such certificate. The holding by the person named in any such certificate of any bond specified therein shall be presumed to continue unless (1) any certificate bearing a later date issued in respect of the same bond shall be produced, (2) the bond specified in such certificate (or any bond or bonds issued in exchange or substitution for such bond) shall be produced by another holder, or (3) the bond specified in such certificate shall be registered as to princi-

pal or shall have been surrendered in exchange for a fully registered bond registered in the name of another holder. The Corporate Trustee may nevertheless in its discretion require further proof in cases where it deems further proof desirable. The ownership of registered bonds shall be proved by the registry books.

“(C) Until such time as the Corporate Trustee shall receive the written consent of the necessary percentum in principal amount of the bonds required by the provisions of subsection (A) above for action contemplated by such consent, any holder of a bond, the serial number of which is shown by the evidence to be included in the bonds the holders of which have consented to such action, may, by filing written notice with the Corporate Trustee at its principal office and upon proof of holding as provided in subsection (B) above, revoke such consent so far as it concerns such bond. Except as aforesaid, any such consent shall be conclusive and binding upon such holder and upon all future holders of such bond (and any bond issued in lieu thereof or exchanged therefor), irrespective of whether or not any notation of such consent is made upon such bond, and in any event any action taken by the holders of the percentage in aggregate principal amount of the bonds specified in subsection (A) above in connection with such action shall, subject to the provisions of the last sentence of Section 114 hereof, be conclusively binding upon the Company, the Trustees and the holders of all the bonds.”

SECTION 6. The Trustees hereby accept the trusts hereby declared, provided, created or supplemented, and agree to perform the same upon the terms and conditions herein and in the Mortgage, as heretofore supplemented, set forth, including the following:

The Trustees shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Ninth Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made by the Company solely. In general each and every term and condition contained in Article XVII of the Mortgage shall apply to and form part of this Ninth Supplemental Indenture with the same force and effect as if the same were herein set forth in full, with such omissions, variations and

insertions, if any, as may be appropriate to make the same conform to the provisions of the Ninth Supplemental Indenture.

SECTION 7. Whenever in this Ninth Supplemental Indenture any of the parties hereto is named or referred to, this shall, subject to the provisions of Articles XVI and XVII of the Mortgage, be deemed to include the successors or assigns of such party, and all the covenants and agreements in this Ninth Supplemental Indenture contained by or on behalf of the Company or by or on behalf of the Trustees shall bind and inure to the benefit of the respective successors and assigns of such parties whether so expressed or not.

SECTION 8. Nothing in this Ninth Supplemental Indenture, expressed or implied, is intended, or shall be construed, to confer upon, or to give to, any person, firm or corporation, other than the parties hereto and the holders of the bonds and coupons outstanding under the Mortgage, any right, remedy, or claim under or by reason of this Ninth Supplemental Indenture or any covenant, condition, stipulation, promise or agreement hereof, and all the covenants, conditions, stipulations, promises and agreements by or on behalf of the Company as set forth in this Ninth Supplemental Indenture shall be for the sole and exclusive benefit of the parties hereto, and of the holders of the bonds and of the coupons outstanding under the Mortgage.

SECTION 9. This Ninth Supplemental Indenture has been executed in several identical counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, Northwest Natural Gas Company, party hereto of the first part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by its President or one of its Vice Presidents, and its corporate seal to be attested by its Secretary or one of its Assistant Secretaries for and in its behalf on the 23rd day of April, 1971, as of April 1, 1971 in the City of Portland, Oregon; Bankers Trust Company, one of the parties hereto of the second part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by one of its Vice Presidents or one of its Assistant Vice Presidents and its corporate seal to be attested by one of its Assistant Secretaries; and J. C. Kennedy, one of the parties hereto of the second part (who is resigning as Co-Trustee effective at the close of business on April 27, 1971), has hereunto set his hand and affixed his seal, and Stanley Burg, one of the parties

hereto of the second part (who is appointed as successor Co-Trustee effective at the close of business on April 27, 1971), has hereunto set his hand and affixed his seal, all in The City of New York, on the 26th day of April, 1971, as of April 1, 1971.

NORTHWEST NATURAL GAS COMPANY

[CORPORATE SEAL]

By FRANCIS F. HILL
President.

Attest:

W. E. RADFORD
Secretary.

Executed, sealed and delivered by NORTHWEST
NATURAL GAS COMPANY in the presence of:

W. A. COOK
KATHLEEN SKINNER

BANKERS TRUST COMPANY, as Trustee,

[CORPORATE SEAL]

By G. E. MAIER
Vice President.

Attest:

W. L. TISCHLER
Assistant Secretary.

J. C. KENNEDY (L.S.)
J. C. KENNEDY

STANLEY BURG (L.S.)
STANLEY BURG

Executed, sealed and delivered by BANKERS
TRUST COMPANY, J. C. KENNEDY and STANLEY
BURG in the presence of:

IRA M. BRATT
M. E. SECHEHAY, JR.

STATE OF OREGON }
COUNTY OF MULTNOMAH } ss.:

April 23rd, A. D. 1971.

Before me personally appeared FRANCIS F. HILL, who, being duly sworn, did say that he is President of NORTHWEST NATURAL GAS COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 23rd day of April, 1971, before me personally appeared FRANCIS F. HILL, to me known to be President of NORTHWEST NATURAL GAS COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

[NOTARIAL SEAL]

H. W. PIERCE
Notary Public for Oregon

My Commission Expires January 25, 1974

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

April 26th, A. D. 1971.

Before me personally appeared G. E. MAIER, who, being duly sworn, did say that he is a Vice President of BANKERS TRUST COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 26th day of April, 1971, before me personally appeared G. E. MAIER, to me known to be a Vice President of BANKERS TRUST COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

[NOTARIAL SEAL]

CHRISTINE GERACE
Notary Public

CHRISTINE GERACE
Notary Public, State of New York
No. 24-1407147
Qualified in Kings County
Certificate filed in New York County
Commission Expires March 30, 1973

STATE OF NEW YORK }
COUNTY OF NEW YORK { ss.:

April 26th, A. D. 1971.

Before me personally appeared the above-named J. C. KENNEDY and acknowledged the foregoing instrument to be his voluntary act and deed.

On this day personally appeared before me J. C. KENNEDY to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 26th day of April, 1971.

[NOTARIAL SEAL]

CHRISTINE GERACE
Notary Public

CHRISTINE GERACE
Notary Public, State of New York
No. 24-1407147
Qualified in Kings County
Certificate filed in New York County
Commission Expires March 30, 1973

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

April 26th, A. D. 1971.

Before me personally appeared the above-named STANLEY BURG and acknowledged the foregoing instrument to be his voluntary act and deed.

On this day personally appeared before me STANLEY BURG to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 26th day of April, 1971.

[NOTARIAL SEAL]

CHRISTINE GERACE
Notary Public

CHRISTINE GERACE
Notary Public, State of New York
No. 24-1407147
Qualified in Kings County
Certificate filed in New York County
Commission Expires March 30, 1973

STATE OF OREGON }
COUNTY OF MULTNOMAH } ss.:

FRANCIS F. HILL, being duly sworn, deposes and says that he is President of NORTHWEST NATURAL GAS COMPANY, the Mortgagor named in the foregoing instrument, and makes this affidavit for and on its behalf; that said instrument is made in good faith, and without any design to hinder, delay, or defraud creditors.

FRANCIS F. HILL

Subscribed and sworn to before me }
this 23rd day of April, 1971. }

[NOTARIAL SEAL]

H. W. PIERCE
Notary Public for Oregon

My Commission Expires January 25, 1974

(EXHIBIT A)

NOTICE OF RESIGNATION OF CO-TRUSTEE

NOTICE IS HEREBY GIVEN that the undersigned J. C. Kennedy has resigned as successor Co-Trustee under the Mortgage and Deed of Trust dated as of July 1, 1946, as amended, of Portland Gas & Coke Company (now Northwest Natural Gas Company) to Bankers Trust Company and R. G. Page (J. C. Kennedy, successor), as Trustees, such resignation having taken effect at the close of business on April 27, 1971.

Dated, April 28, 1971.

J. C. KENNEDY

NOTICE OF APPOINTMENT OF SUCCESSOR CO-TRUSTEE

NOTICE IS HEREBY GIVEN that the undersigned Northwest Natural Gas Company has received notice of and accepted the foregoing resignation of J. C. Kennedy as Co-Trustee under its said Mortgage and Deed of Trust dated as of July 1, 1946, as amended, and that as provided in said Mortgage and Deed of Trust the undersigned has appointed Stanley Burg as successor Co-Trustee thereunder, effective at the close of business on April 27, 1971.

Dated, April 28, 1971.

NORTHWEST NATURAL GAS COMPANY

SUMMARY OF RECORDING DATA

IN THE STATE OF OREGON

Real Property Mortgage Records

<u>Counterpart No.</u>	<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
11	Benton	May 11, 1971	24409	—
12	Clackamas	May 11, 1971	71-10026	—
13	Clatsop	May 11, 1971	347	503
14	Columbia	May 11, 1971	115	864
15	Cook	May 11, 1971	71-5-58818/52	—
16	Douglas	May 11, 1971	466	219
17	Hood River	May 11, 1971	710790	—
18	Lane	May 11, 1971	531R	—
19	Lincoln	May 11, 1971	25	760
20	Linn	May 11, 1971	MF14	877
21	Marion	May 11, 1971	670	171
22	Multnomah	May 11, 1971	786	1449
23	Polk	May 11, 1971	16	351
24	Tillamook	May 11, 1971	223	72
25	Wasco	May 11, 1971	710749	—
26	Washington	May 11, 1971	816	680
27	Yamhill	May 11, 1971	83	1952

Filed as a Financing Statement

<u>Counterpart No.</u>	<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
9	Secretary of State.....	May 11, 1971	C-02566

(An executed counterpart of the Ninth Supplemental Indenture was filed on May 7, 1971 in the office of the Auditor of the City of Portland.)

IN THE STATE OF WASHINGTON

Real Property Mortgage Records

<u>Counterpart No.</u>	<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
29	Clark	May 11, 1971	780758	—
30	Klickitat	May 11, 1971	104	263A
31	Skamania	May 11, 1971	48	969

Filed as a Financing Statement

<u>Counterpart No.</u>	<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
28	Secretary of State.....	May 11, 1971	0124352

NORTHWEST NATURAL GAS COMPANY

TO

BANKERS TRUST COMPANY

AND

STANLEY BURG

(SUCCESSOR TO R. G. PAGE AND J. C. KENNEDY),

As Trustees under the Mortgage and Deed
of Trust, dated as of July 1, 1946, of
Portland Gas & Coke Company (now
Northwest Natural Gas Company)

Tenth Supplemental Indenture

providing among other things for
First Mortgage Bonds, 12% Series due 1984

Dated as of January 1, 1975

TENTH SUPPLEMENTAL INDENTURE

INDENTURE, dated as of the 1st day of January, 1975, made and entered into by and between NORTHWEST NATURAL GAS COMPANY (formerly Portland Gas & Coke Company), a corporation of the State of Oregon, whose post office address is Suite 300, 200 S.W. Market Street, Portland, Oregon, 97201 (hereinafter sometimes called the Company), party of the first part, and BANKERS TRUST COMPANY, a corporation of the State of New York, whose post office address is Sixteen Wall Street, New York, New York 10015 (hereinafter sometimes called the Corporate Trustee) and STANLEY BURG (successor to R. G. PAGE and J. C. KENNEDY), whose post office address is 23 Dover Green, Staten Island, New York 10312 (hereinafter sometimes called the Co-Trustee), parties of the second part (the Corporate Trustee and the Co-Trustee being hereinafter together sometimes called the Trustees), as Trustees under the Mortgage and Deed of Trust, dated as of July 1, 1946 (hereinafter called the Mortgage), executed and delivered by Portland Gas & Coke Company (now Northwest Natural Gas Company) to secure the payment of bonds issued or to be issued under and in accordance with the provisions of the Mortgage, this indenture (hereinafter called Tenth Supplemental Indenture) being supplemental thereto;

WHEREAS the Mortgage was or is to be recorded in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Tenth Supplemental Indenture is to be recorded; and

WHEREAS by the Mortgage the Company covenanted that it would execute and deliver such supplemental indenture or indentures and such further instruments and do such further acts as might be necessary or proper to carry out more effectually the purposes of the Mortgage and to make subject to the lien of the Mortgage any property thereafter acquired, made or constructed and intended to be subject to the lien thereof; and

WHEREAS the Company executed and delivered to the Trustees its First Supplemental Indenture, dated as of June 1, 1949 (hereinafter called its First Supplemental Indenture), its Second Supplemental Indenture, dated as of March 1, 1954 (hereinafter called its Second Supplemental Indenture), its Third Supplemental Indenture, dated as of April 1, 1956 (hereinafter called its Third Supplemental Indenture), its Fourth Supplemental Indenture, dated as of February 1, 1959 (hereinafter called its Fourth Supple-

mental Indenture), its Fifth Supplemental Indenture, dated as of July 1, 1961 (hereinafter called its Fifth Supplemental Indenture), its Sixth Supplemental Indenture, dated as of January 1, 1964 (hereinafter called its Sixth Supplemental Indenture), its Seventh Supplemental Indenture, dated as of March 1, 1966 (hereinafter called its Seventh Supplemental Indenture), and its Eighth Supplemental Indenture, dated as of December 1, 1969 (hereinafter called its Eighth Supplemental Indenture); and

WHEREAS said First through Eighth Supplemental Indentures were filed for record, and were recorded and indexed, as a mortgage of both real and personal property, in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Tenth Supplemental Indenture is to be recorded; and

WHEREAS the Company executed and delivered to the Trustees its Ninth Supplemental Indenture, dated as of April 1, 1971 (hereinafter called its Ninth Supplemental Indenture); and

WHEREAS said Ninth Supplemental Indenture was filed for record, and was recorded and indexed, as a mortgage of both real and personal property, and financing statements were filed, in the official records of the several counties and other offices in the States of Oregon and Washington listed below, as follows:

OREGON
Real Property Mortgage Records

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Benton	May 11, 1971	24409	—
Clackamas	May 11, 1971	71-10026	—
Clatsop	May 11, 1971	347	503
Columbia	May 11, 1971	115	864
Cook	May 11, 1971	71-5-58818/52	—
Douglas	May 11, 1971	466	219
Hood River	May 11, 1971	710790	—
Lane	May 11, 1971	531R	—
Lincoln	May 11, 1971	25	760
Linn	May 11, 1971	MF14	877
Marion	May 11, 1971	670	171
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Polk	May 11, 1971	16	351
Tillamook	May 11, 1971	223	72
Wasco	May 11, 1971	710749	—
Washington	May 11, 1971	816	680
Yamhill	May 11, 1971	83	1952

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
Secretary of State	May 11, 1971	C-02566

(An executed counterpart of the Ninth Supplemental Indenture was filed on May 7, 1971 in the office of the Auditor of the City of Portland.)

WASHINGTON
Real Property Mortgage Records

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Clark	May 11, 1971	780758	—
Klickitat	May 11, 1971	104	263A
Skamania	May 11, 1971	48	969

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
Secretary of State	May 11, 1971	0124352

and

WHEREAS an instrument dated as of June 14, 1951, was executed by the Company appointing J. C. Kennedy as Co-Trustee in succession to said R. G. Page (resigned) under the Mortgage and by J. C. Kennedy accepting the appointment as Co-Trustee under the Mortgage in succession to the said R. G. Page, which instrument was recorded in various counties in the States of Oregon and Washington; and

WHEREAS, in the Ninth Supplemental Indenture STANLEY BURG was appointed by the Company as Co-Trustee under the Mortgage in succession to said J. C. KENNEDY (resigned) and in the Ninth Supplemental Indenture Stanley Burg accepted such appointment as Co-Trustee under the Mortgage in succession to said J. C. Kennedy; and

WHEREAS in addition to the property described in the Mortgage, as heretofore supplemented, the Company has acquired certain other property, rights and interests in property; and

WHEREAS, the Company has heretofore issued, in accordance with the provisions of the Mortgage, as supplemented, the following series of First Mortgage Bonds:

<u>Series</u>	<u>Principal Amount Outstanding</u>
3 $\frac{1}{8}$ % Series due 1976.....	\$10,000,000
3 $\frac{7}{8}$ % Series due 1974.....	None
4 % Series due 1974.....	None
4 $\frac{3}{8}$ % Series due 1976.....	\$ 1,744,000
5 $\frac{1}{8}$ % Series due 1984.....	\$ 4,972,000
5 $\frac{1}{8}$ % Series due 1986.....	\$ 5,062,000
4 $\frac{3}{4}$ % Series due 1989.....	\$ 5,855,000
5 $\frac{3}{4}$ % Series due 1991.....	\$14,075,000
9 $\frac{3}{8}$ % Series due 1974.....	None
8 $\frac{5}{8}$ % Series due 1996.....	\$18,000,000;

and

WHEREAS Section 8 of the Mortgage provides that the form of each series of bonds (other than the First Series) issued thereunder shall be established by Resolution of the Board of Directors of the Company; that the form of such series, as established by said Board of Directors, shall specify the descriptive title of the bonds and various other terms thereof; and that such Series may also contain such provisions not inconsistent with the provisions of the Mortgage as the Board of Directors may, in its discretion, cause

to be inserted therein expressing or referring to the terms and conditions upon which such bonds are to be issued and/or secured under the Mortgage; and

WHEREAS Section 120 of the Mortgage provides, among other things, that any power, privilege or right expressly or impliedly reserved to or in any way conferred upon the Company by any provision of the Mortgage, whether such power, privilege or right is in any way restricted or is unrestricted, may (to the extent permitted by law) be in whole or in part waived or surrendered or subjected to any restriction if at the time unrestricted or to additional restriction if already restricted, and the Company may enter into any further covenants, limitations or restrictions for the benefit of any one or more series of bonds issued thereunder, or the Company may cure any ambiguity contained therein or in any supplemental indenture or may (in lieu of establishment by Resolution as provided in Section 8 of the Mortgage) establish the terms and provisions of any series of bonds other than said First Series, by an instrument in writing executed and acknowledged by the Company in such manner as would be necessary to entitle a conveyance of real estate to record in all of the states in which any property at the time subject to the lien of the Mortgage shall be situated; and

WHEREAS the Company now desires to create a new series of bonds and (pursuant to the provisions of Section 120 of the Mortgage) to add to its covenants and agreements contained in the Mortgage, as heretofore supplemented, certain other covenants and agreements to be observed by it and to alter and amend in certain respects the covenants and provisions contained in the Mortgage, as heretofore supplemented and amended; and

WHEREAS the Company wishes to secure the repayment of \$30,000,000 aggregate principal amount of its 12% Secured Notes Due 1984 (the "Secured Notes") issued pursuant to several Note Purchase Agreements dated December 31, 1974 (the "Note Purchase Agreements"), between the Company and the several purchasers named therein, by the issuance and pledge of \$30,000,000 aggregate principal amount of such new series of bonds to be created and issued pursuant to the Mortgage, as heretofore supplemented, and as supplemented by this Tenth Supplemental Indenture; and

WHEREAS the execution and delivery by the Company of this Tenth Supplemental Indenture, and the terms of the bonds of the Eleventh Series hereinafter referred to, have been duly authorized by the Board of Directors of the Company by appropriate resolutions of said Board of Directors;

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

That Northwest Natural Gas Company, in consideration of the premises and of One Dollar to it duly paid by the Trustees at or before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, and in further assurance of the estate, title and rights of the Trustees, and in order further to secure the payment both of the principal of and interest and premium, if any, on the bonds from time to time issued under the Mortgage, according to their tenor and effect, and the performance of all the provisions of the Mortgage (including any instruments supplemental thereto and any modification made as in the Mortgage provided) and of said bonds, hereby grants, bargains, sells, releases, conveys, assigns, transfers, mortgages, pledges, sets over and confirms (subject, however, to Excepted Encumbrances, as defined in Section 6 of the Mortgage) unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees under the Mortgage, and to their successor or successors in said trust, and to said Trustees and their successors and assigns forever, all property, real, personal and mixed, acquired by the Company after the date of the Mortgage, of the kind or nature specifically mentioned in Article XXI of the Mortgage or of any other kind or nature (except any herein or in the Mortgage expressly excepted) now owned or, subject to the provisions of subsection (I) of Section 87 of the Mortgage, hereafter acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) and wheresoever situated, including (without in anywise limiting or impairing by the enumeration of the same the scope and intent of the foregoing) all lands, gas plants, by-product plants, gas holders, gas mains and pipes; all power sites, water rights, reservoirs, canals, raceways, dams, aqueducts, and all other rights or means for appropriating, conveying, storing and supplying water; all rights of way and roads; all plants for the generation of electricity by steam, water and/or other power; all power houses, street lighting systems, standards and other equipment incidental thereto, telephone, radio, television and air-conditioning systems and equipment incidental thereto, water works, water systems, steam heat and hot water plants, substations, lines, service and supply systems, bridges, culverts, tracts, ice or refrigeration plants and equipment, offices, buildings and other structures and the equipment thereof; all machinery, engines, boilers, dynamos, gas, electric and other machines, regulators, meters, transformers, generators, motors, gas, electrical and mechanical appliances, conduits, cables, gas, water, steam heat or other pipes, service pipes, fittings, valves and connections, pole

and transmission lines, wires, cables, tools, implements, apparatus, furniture and chattels; all franchises, consents or permits; all lines for the transmission and distribution of gas, electric current, steam heat or water for any purpose including mains, pipes, conduits, towers, poles, wires, cables, ducts and all apparatus for use in connection therewith; all real estate, lands, easements, servitudes, licenses, permits, franchises, privileges, rights of way and other rights in or relating to public or private property, real or personal, or the occupancy of such property and (except as herein or in the Mortgage, as heretofore supplemented, expressly excepted) all right, title and interest the Company may now have or may hereafter acquire in and to any and all property of any kind or nature wheresoever situated.

TOGETHER WITH all and singular the tenements, hereditaments, prescriptions, servitudes and appurtenances belonging or in anywise appertaining to the aforementioned property or any part thereof, with the reversion and reversions, remainder and remainders and (subject to the provisions of Section 57 of the Mortgage) the tolls, rents, revenues, issues, earnings, income, product and profits thereof, and all the estate, right, title and interest and claim whatsoever, at law as well as in equity, which the Company now has or may hereafter acquire in and to the aforementioned property and franchises and every part and parcel thereof.

IT IS HEREBY AGREED by the Company that, subject to the provisions of subsection (I) of Section 87 of the Mortgage, all the property, rights, and franchises acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) after the date hereof, except any herein or in the Mortgage, as heretofore supplemented, expressly excepted, shall be and are as fully granted and conveyed hereby and by the Mortgage, and as fully embraced within the lien hereof and the lien of the Mortgage, as supplemented, as if such property, rights and franchises were now owned by the Company and were specifically described herein or in the Mortgage, as heretofore supplemented, and conveyed hereby or thereby.

Provided that the following are not and are not intended to be now or hereafter granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed hereunder and are hereby expressly excepted from the lien and operation of this Tenth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, viz: (1) cash, shares of stock, bonds, notes and other obligations and other securities not hereafter specifically pledged, paid, deposited, delivered or held

under the Mortgage, as heretofore supplemented, or covenanted so to be; (2) merchandise, equipment, apparatus, materials or supplies held for the purpose of sale or other disposition in the usual course of business; fuel, oil and similar materials and supplies consumable in the operation of any of the properties of the Company; all aircraft, tractors, rolling stock, trolley coaches, buses, motor coaches, automobiles, motor trucks, and other vehicles and materials and supplies held for the purpose of repairing or replacing (in whole or part) any of the same; (3) bills, notes and accounts receivable, judgments, demands and choses in action, and all contracts, leases and operating agreements not specifically pledged under the Mortgage, as heretofore supplemented, or covenanted so to be; (4) the last day of the term of any lease or leasehold which may be or become subject to the lien of the Mortgage; (5) gas, petroleum, carbon, chemicals, light oils, tar products, electric energy, steam, water, ice, and other materials or products, manufactured, stored, generated, produced, purchased or acquired by the Company for sale, distribution or use in the ordinary course of its business; all timber, minerals, mineral rights and royalties and all Natural Gas and Oil Production Property, as defined in Section 4 of the Mortgage; and (6) the Company's franchise to be a corporation; provided, however, that the property and rights expressly excepted from the lien and operation of this Tenth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, in the above subdivisions (2) and (3) shall (to the extent permitted by law) cease to be so excepted in the event and as of the date that either or both of the Trustees or a receiver or trustee shall enter upon and take possession of the Mortgaged and Pledged Property in the manner provided in Article XIII of the Mortgage by reason of the occurrence of a Default as defined in Section 65 thereof.

TO HAVE AND TO HOLD all such properties, real, personal and mixed, granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed by the Company as aforesaid, or intended so to be, unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees, and their successors and assigns forever.

IN TRUST NEVERTHELESS, for the same purposes and upon the same terms, trusts and conditions and subject to and with the same provisos and covenants as are set forth in the Mortgage, as heretofore supplemented, this Tenth Supplemental Indenture being supplemental thereto.

AND IT IS HEREBY COVENANTED by the Company that all the terms, conditions, provisos, covenants and provisions contained in the Mortgage, as heretofore supplemented, shall affect and apply to the property hereinbefore described and conveyed, and to the estates, rights, obligations and duties of the Company and the Trustees and the beneficiaries of the trust with respect to said property, and to the Trustees and their successors in the trust, in the same manner and with the same effect as if the said property had been owned by the Company at the time of the execution of the Mortgage, and had been specifically and at length described in and conveyed to said Trustees by the Mortgage as a part of the property therein stated to be conveyed.

The Company further covenants and agrees to and with the Trustees and their successors in said trust under the Mortgage, as follows:

ARTICLE I.

Eleventh Series of Bonds.

SECTION 1.01. *Amount, Interest and Maturity.* There shall be a series of bonds designated "12% Series due 1984" (herein sometimes referred to as the "Eleventh Series"), each of which shall also bear the descriptive title First Mortgage Bond, and the form thereof, which shall be established by Resolution of the Board of Directors of the Company, shall contain suitable provisions with respect to the matters hereinafter in this Section specified. Bonds of the Eleventh Series shall be limited to \$30,000,000 in aggregate principal amount at any one time Outstanding except as provided in Section 16 of the Mortgage and shall mature on December 1, 1984, and shall be issued as fully registered bonds in denominations of One Thousand Dollars and, at the option of the Company, in any multiple or multiples of One Thousand Dollars (the exercise of such option to be evidenced by the execution and delivery thereof); they shall bear interest from January 21, 1975 at the rate of 12% per annum (computed on the basis of a 360-day year of twelve 30-day months), payable, subject to Section 1.03 hereof, semi-annually on June 1 and December 1 of each year, commencing June 1, 1975; and the principal of, premium, if any, and interest on each said bond shall be payable at the office or agency of the Company in the Borough of Manhattan, the City of New York, in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts, and, at the option of the Company, may be paid by check mailed to the registered holder thereof. Bonds of the Eleventh Series shall be dated as in Section 10 of the Mortgage provided.

SECTION 1.02. *Redemption.* Bonds of the Eleventh Series shall be redeemable at the option of the Company on any date on or after December 1, 1979 in accordance with the requirements of the Mortgage in whole at any time, or in part from time to time (if in part, in multiples of \$100,000 but in amounts not less than \$1,000,000 in aggregate principal amount of such bonds), prior to maturity, upon notice, as provided in Section 52 of the Mortgage, mailed at least thirty (30) days prior to the date fixed for redemption at the following redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

<u>If redeemed during the twelve-month period beginning December 1,</u>	<u>Percentage</u>
1979	105.00%
1980	103.75
1981	102.50
1982	101.25
1983 and thereafter	100.00

in each case, together with accrued interest to the date fixed for redemption; *provided, however,* that prior to June 1, 1984, no bonds of the Eleventh Series may be redeemed pursuant to this Section prior to maturity as part of or in anticipation of any refinancing operation involving, directly or indirectly, the incurring of indebtedness by the Company or any subsidiary or affiliate thereof for borrowed funds having an interest rate or cost (calculated in accordance with generally accepted financial practice) of less than 12% per annum. The term "affiliate" means a person directly or indirectly controlling, controlled by, or under direct or indirect common control with, the Company. A person shall be deemed to control a corporation or other person, for the purpose of this definition, if such person possesses, directly or indirectly, the power to direct or cause the direction of the management and policies of such corporation or other person, whether through the ownership of voting securities, by contract, or otherwise. The term "subsidiary" means any corporation at least a majority of whose outstanding voting stock shall at the time be owned by the Company and/or by one or more subsidiaries of the Company.

Bonds of the Eleventh Series shall be redeemable by the application of cash deposited with the Corporate Trustee pursuant to the provisions of Section 39 or Section 64 of the Mortgage or with the Proceeds of Released Property; *provided, however,* that no bonds of the Eleventh Series shall be redeemable pursuant to any Section of the Mortgage (other than pursuant to the first paragraph of this Section 1.02) which permits the Com-

pany to designate one or more series from which redemption is to be made without the prior written consent of the holders of not less than 70% of the principal amount of the bonds of the Eleventh Series then Outstanding, which consent shall be requested by the Company. Any such redemption, if consented to, shall be made at a redemption price equal to 100% of the principal amount thereof, together with accrued interest to the date fixed for redemption.

Subject to the provisions of Section 1.03 hereof, Bonds of the Eleventh Series shall be redeemed through the annual operation of the sinking fund pursuant to Article II hereof at a sinking fund redemption price equal to 100% of the principal amount thereof, in each case together with accrued interest to the date fixed for redemption.

SECTION 1.03. *Effect of Payment of Secured Notes; Covenant to Pay.* The obligation of the Company to pay the principal of, premium, if any, and interest on the bonds of the Eleventh Series on any date fixed for the payment of such amounts pursuant to this Tenth Supplemental Indenture shall be discharged by (i) the payment of all of the corresponding amounts when due and payable in respect of the principal of, premium, if any, and interest on the Secured Notes to be issued pursuant to Note Purchase Agreements, each dated December 31, 1974, between the Company and the purchasers named therein; and (ii) in the case of payments of principal and premium, if any, the presentation and surrender for cancellation or exchange, or the presentation for notation, of the bonds of the Eleventh Series to the Corporate Trustee as provided in Section 54 of the Mortgage. Without limiting the effect of the foregoing, prepayment of the Secured Notes pursuant to Section 2.01 or 2.02 of the Note Purchase Agreements shall, upon presentation and surrender for cancellation or exchange, or presentation for notation, of the bonds of the Eleventh Series as provided in the preceding sentence, discharge the obligation hereunder to make an Eleventh Series Sinking Fund Payment or redemption pursuant to Section 2.01, 2.02 or 1.02 hereof for the corresponding date. If any amounts payable in respect of the Secured Notes on a date fixed for the payment thereof pursuant to the Note Purchase Agreements shall not be paid on such date, the corresponding amount payable in respect of the bonds of the Eleventh Series on such date, or the portion thereof which is equal to that portion of the amounts then payable in respect of the Secured Notes and remaining unpaid, shall be paid to the registered owners of the bonds of the Eleventh Series.

The Company covenants that it will duly and punctually pay the principal of, premium, if any, and interest on the Secured Notes as and when the same shall become due and payable whether at maturity, upon redemption,

whether mandatory or optional, by declaration or otherwise. The Company covenants that it will promptly notify the Corporate Trustee of any Event of Default under the Note Purchase Agreements.

SECTION 1.04. *Payment Certificates.* The Company shall, if it is the case, deliver to the Corporate Trustee on each date on which any amounts would otherwise be required to be paid in respect of bonds of the Eleventh Series pursuant to the provisions hereof and of the Mortgage, an Officers' Certificate (the "Payment Certificate") that it has duly and punctually made the corresponding payments in respect of the Secured Notes, in which event the Company shall not, unless default is made in the making of any such payment on the Secured Notes, be required to pay any such amounts in respect of bonds of the Eleventh Series. The Corporate Trustee shall be entitled to rely conclusively upon any Payment Certificate delivered by the Company unless and until it shall have received written notice from the holder of any bond of the Eleventh Series that any such amounts so payable in respect of the Secured Notes have not been duly paid.

SECTION 1.05. *Exchange and Registration.* At the option of the registered owner, any bonds of the Eleventh Series, upon surrender thereof, for cancellation, at the office or agency of the Company in the Borough of Manhattan, the City of New York, shall (subject to the provisions of Section 12 of the Mortgage) be exchangeable for a like aggregate principal amount of bonds of the same series of other authorized denominations.

Transfers of bonds of the Eleventh Series may be registered (subject to the provisions of Section 12 of the Mortgage) at the office or agency of the Company in the Borough of Manhattan, the City of New York.

Upon any registration of transfer or exchange of bonds of the Eleventh Series, the Company may make a charge therefor sufficient to reimburse it for any tax or taxes or other governmental charge, as provided in Section 12 of the Mortgage, but the Company hereby waives any right to make a charge in addition thereto for any registration or exchange or transfer of bonds of the Eleventh Series.

ARTICLE II.

Sinking Fund for Bonds of the Eleventh Series.

SECTION 2.01. *Regular Sinking Fund and Dates.* Subject to the provisions of Section 1.03 hereof, the Company covenants that, unless all bonds

of the Eleventh Series shall have ceased to be Outstanding, it will, as a sinking fund for the retirement of bonds of the Eleventh Series, pay to the Corporate Trustee an amount in cash not later than December 1 in each of the years 1979 to and including 1983 (subject to acceleration pursuant to Section 2.02 hereof) sufficient to redeem \$4,500,000 principal amount of such bonds (subject to adjustment pursuant to Section 2.02 hereof) at the sinking fund redemption price, together with accrued interest thereon to the date fixed for redemption. The dates upon which such payments are to be made are herein called "Eleventh Series Sinking Fund Payment Dates". The amount to be paid to the Corporate Trustee on an Eleventh Series Sinking Fund Payment Date is herein called an "Eleventh Series Sinking Fund Payment".

The Company shall not be entitled to increase, or to anticipate, any payment in satisfaction of its obligations in respect of the Sinking Fund for the Eleventh Series, except as specifically provided in Section 2.02 below. The Company will not, and will not permit any subsidiary to, acquire directly or indirectly by purchase or otherwise any of the outstanding bonds of the Eleventh Series except by way of payment or redemption in accordance with the provisions of this Tenth Supplemental Indenture.

SECTION 2.02. *Adjusted Sinking Fund Payments and Accelerated Sinking Fund Payment Dates.* The terms used in this Section 2.02 shall have the meanings defined in Section 2.03. On or before March 31 of each year beginning with the year 1975, the Company covenants that it shall file a Certificate of Firm Gas Supply with the Trustee and, so long as any original holder of bonds of the Eleventh Series continues to hold any of such bonds, deliver a copy of such Certificate to such original holder. If the Date of Exhaustion of Firm Gas Supply shown by the Certificate of Firm Gas Supply so filed shall be a date earlier than December 1, 1984, then the dates of the Eleventh Series Sinking Fund Payment Dates and the amounts of the Eleventh Series Sinking Fund Payments shall be redetermined as follows: The aggregate principal amount of bonds of the Eleventh Series outstanding on the date on which such certificate was filed shall be divided by the number of December 1sts subsequent to the date on which such certificate is filed and prior to such Date of Exhaustion. The resulting quotient (rounded to the next higher integral multiple of \$1,000 if the quotient is not an integral multiple of \$1,000) shall thereupon become the adjusted Eleventh Series Sinking Fund Payment. Each December 1st subsequent to the

date on which such certificate is filed and prior to such Date of Exhaustion that is also prior to December 1, 1979 shall thereupon become an accelerated Eleventh Series Sinking Fund Payment Date. Such adjusted Eleventh Series Sinking Fund Payment shall then be paid to the Corporate Trustee not later than each Eleventh Series Sinking Fund Payment Date, including any accelerated Eleventh Series Sinking Fund Payment Date.

If any Certificate of Firm Gas Supply filed in any year after the Company's Eleventh Series Sinking Fund Payment has been adjusted as hereinabove provided shall show a Date of Exhaustion of Firm Gas Supply that is both different from the Date of Exhaustion shown in the most recent previous Certificate of Firm Gas Supply and prior to December 1, 1984, the amount of the Company's remaining adjusted Eleventh Series Sinking Fund Payments shall again be adjusted in the same manner as provided above. If any such subsequently filed Certificate of Firm Gas Supply shall show a Date of Exhaustion later than November 30, 1984, then (until such time as a further subsequent Certificate of Firm Gas Supply shall be filed showing a Date of Exhaustion prior to December 1, 1984) no further payments on accelerated Eleventh Series Sinking Fund Payment Dates shall be required to be made and the remaining Eleventh Series Sinking Fund Payments shall be made as provided, exclusive of any adjustment, in the first paragraph of Section 2.01, except that (1) if less than \$22,500,000 shall then have been paid, each such remaining Eleventh Series Sinking Fund Payment shall be reduced by a fraction computed by dividing (i) the sum of (x) any Eleventh Series Sinking Fund Payments theretofore made on accelerated Eleventh Series Sinking Fund Payment Dates plus (y) the aggregate amount of any excess of an adjusted Eleventh Series Sinking Fund Payment over \$4,500,000 for all such payments theretofore made on the Eleventh Series Sinking Fund Payment Dates after December 1, 1978, by (ii) \$4,500,000 multiplied by the number of December 1sts which are subsequent to both December 1, 1978 and the date such Certificate is filed and which are prior to December 1, 1984, or (2) if \$22,500,000 or more shall then have been paid, no further payments shall be required to be made on any remaining Eleventh Series Sinking Fund Payment Dates.

Nothing contained in this Section 2.02 shall affect the obligation of the Company to repay the unpaid principal amount of bonds of the Eleventh Series at maturity on December 1, 1984.

SECTION 2.03. *Certain Definitions.* For purposes of this Article II, the following terms shall have the following meanings:

The term "*Certificate of Firm Gas Supply*" shall mean an Officers' Certificate which shall state:

- (a) The Company's Firm Gas Supply as at January 1 of the year in which such Certificate is filed;

- (b) The Company's Annual Gas Requirements;
- (c) The Company's Firm Gas Supply Life as at January 1 of the year in which such Certificate is filed; and
- (d) The Date of Exhaustion of Firm Gas Supply.

The terms "*Date of Exhaustion of Firm Gas Supply*" or "*Date of Exhaustion*" shall mean the first day of the calendar month next following the end of the period commencing on January 1 of the year in which a Certificate of Firm Gas Supply is filed and extending for the Firm Gas Supply Life shown in such Certificate.

The term "*Firm Gas Supply Life*" shall mean a period of years, stated to the nearest 1/10 of a year, computed by dividing the Company's Firm Gas Supply by the Company's Annual Gas Requirements, each stated in a Certificate of Firm Gas Supply.

The term "*Annual Gas Requirements*" shall mean, for the purposes of any Certificate of Firm Gas Supply, the average of the aggregate annual amount in Therms of all gas sold and of all gas used by the Company during the three calendar years next preceding the date of such Certificate, including gas unaccounted for but excluding the excess, if any, in Therms, of the average aggregate annual amount of gas sold on an interruptible basis during the same period over 35% of the average aggregate annual amount of all gas sold and used.

The term "*Firm Gas Supply*" shall mean, for the purposes of any Certificate of Firm Gas Supply, the sum, without duplication, of

- (a) the aggregate amount in Therms of proven (as evidenced by an independent geologist's certificate dated January 1st or later of the then current year) recoverable natural gas reserves of Distribution Quality (including gas in solution or in a common reservoir with oil or distillate and to be produced with such oil or distillate in the form of casing-head gas) controlled by the Company by virtue of leaseholds owned by the Company or by virtue of contracts or other legal entitlements under which the Company is entitled to purchase natural gas produced from such reserves, which, after taking into account the current availability of transportation facilities and all other pertinent factors relative to such reserves, the Company can reasonably expect to produce, at economically practicable prices, and have delivered to it and to transport to its markets to meet requirements in the future for sales to its customers, after exclud-

ing from such aggregate any amounts to be utilized in connection with the production of Liquefied Natural Gas included under (c) or (e); *provided*, however, that no amounts shall be taken into account hereunder from any reserve unless on or prior to the date of such Certificate, (i) all necessary regulatory approvals required for the commencement and continuation of withdrawals from such reserves and deliveries to the Company's markets have been obtained and are still in full force and effect and (ii) construction of any facilities required for the withdrawal of such gas is in progress and is reasonably expected by the Company to be completed within a period of eighteen months from the date of such Certificate;

(b) to the extent not included in (a) above, the aggregate amount in Therms of gas of Distribution Quality owned or controlled by the Company in storage reservoirs, excluding non-recoverable cushion gas;

(c) the aggregate amount in Therms of Distribution Quality gas which the Company is entitled to purchase or otherwise acquire from interstate, intrastate or Canadian gas pipeline companies under any contract or other legal entitlement providing for the delivery of such gas to, or for the account of, the Company, *provided* that on or prior to the date of such Certificate, all necessary regulatory approvals required for the commencement and continuation of deliveries to the Company of such gas have been obtained and are still in full force and effect, and *provided further* that such aggregate amount shall be diminished by the excess, if any, of (i) that portion which, in light of the circumstances existing on the date of such Certificate, can reasonably be expected will not be delivered to the Company because (x) the Company has received notice or has reason to believe that such pipeline supplier does not intend to or cannot deliver such portion, or (y) the Company has not reasonably assured itself to the extent feasible that such pipeline supplier has itself a sufficient gas supply to perform its contract or other legal obligation for delivery of such portion to, or for the account of, the Company over (ii) the aggregate amount, if any, of Synthetic Gas of Distribution Quality and/or Liquefied Natural Gas of Distribution Quality meeting the requirements of subsections (d) and (e) below (except for the dates set forth in clauses (iii) of such subsections) available to the Company by reason of arrangements made in response to reduction of pipeline supply resulting from the events referred to in (i) above;

(d) the aggregate amount in Therms of Synthetic Gas of Distribution Quality controlled by the Company by virtue of an interest held by the Company in, or under contracts or other legal entitlements to purchase or otherwise acquire production from, any facilities for the production of Synthetic Gas, *provided* that (i) all regulatory approvals required to be obtained on or prior to the date of such Certificate for the construction or operation of such facilities and the purchase or other acquisition of such gas have been obtained and are still in full force and effect, and that construction of such facilities (if not completed) is in progress and is reasonably expected by the Company to be completed within a period of eighteen months from the date of such Certificate, (ii) no event or circumstance has occurred which would prevent the completion and operation of any project of which such facilities are a part, and (iii) any such amount of Synthetic Gas shall as of the date of such Certificate be available to the Company for a remaining term ending not earlier than December 1, 1984; and

(e) the aggregate amount in Therms of Liquefied Natural Gas of Distribution Quality controlled by the Company by virtue of an interest held by the Company in, or under contracts or other legal entitlements to purchase or otherwise acquire production from, any facilities for the liquefaction of natural gas, *provided* that (i) all regulatory approvals required to be obtained on or prior to the date of such Certificate for the construction or operation of such facilities and the purchase or other acquisition of such gas have been obtained and are still in full force and effect, and that construction of such facilities (if not completed) is in progress and is reasonably expected by the Company to be completed within a period of eighteen months from the date of such Certificate, (ii) no event or circumstance has occurred which would prevent the completion and operation of any project of which such facilities are a part, and (iii) any such amount of Liquefied Natural Gas shall as of the date of such Certificate be available to the Company for a remaining term ending not earlier than June 1, 1984;

provided, however, that in the case of (c), the signers of any Certificate of Firm Gas Supply may, if they shall consider such information reliable and of sufficiently recent date and so state in such Certificate, rely on any figures relating to the gas supply of any pipeline supplier contained in the certificate of gas supply most recently filed with a trustee under any indenture securing

bonds or other obligations of said pipeline supplier if (i) such certificate was signed by a person who would qualify as an independent geologist under such indenture and (ii) pursuant to the terms of said indenture, the signer of such certificate of gas supply, in rendering the opinion set forth therein, shall be required to consider substantially the same factors in a substantially similar manner in determining the amount of such gas supply as are required to be considered by the signers of a Certificate of Firm Gas Supply under this Section 2.03 in determining the Firm Gas Supply of the Company, and such certificate of gas supply of the supplier shall be submitted, in conjunction with the Company's Certificate of Firm Gas Supply, to the Trustee and to the original holders of the bonds of the Eleventh Series so long as such original holder continues to hold any such Series; *provided, further*, that in the case of (d) and (e), the aggregate amounts will be included only to the extent that, in the express written opinion of the signers of the Certificate of Firm Gas Supply hereunder, (i) the design, capacity and useful life of such facilities will permit the production of such amount; (ii) raw materials to be consumed in the production of Synthetic Gas by any facilities referred to in (d) have been acquired or contracted for in quantities sufficient to permit the production of such amount; (iii) the natural gas required to be consumed or used in the production of Liquefied Natural Gas by any facilities referred to in (e) has been acquired or contracted for in quantities sufficient to permit the production of such amount; and (iv) the nature and extent of the Company's interest in such facilities, or the contracts or other legal entitlements by virtue of which the Company has rights to purchase or otherwise acquire production therefrom, and the Company's ability to procure the transportation thereof, are such as to permit the Company to obtain the delivery of such amount; *and provided, further*, in computing Firm Gas Supply, any gas, including Liquefied Natural Gas and Synthetic Gas, available to the Company from sources not located in the United States of America, whether owned by the Company, its supplier or any supplier of such supplier, shall be included only to the extent that the amount thereof (i) can reasonably be expected to be transported into the United States, over the life of any applicable contract to which the Company is a party, by the Company or its supplier or for delivery to such supplier for sale to the Company, (ii) can be exported from the foreign sources without violating any law, regulation or embargo of any country other than the United States having jurisdiction thereof relating to the export of such gas, and (iii) can be imported into the United States by the Company or its supplier or for delivery to such supplier for sale to the Company without violating any law, regulation or embargo of the United States relating to the import of such gas.

The term "*Distribution Quality*", when used in reference to any gas, shall mean gas which upon delivery to the Company or after further treatment or processing by available and feasible means, or after blending with other gas available to the Company, is of a quality susceptible for sale or use by the Company in satisfying its gas requirements.

The term "*Liquefied Natural Gas*" shall mean natural gas converted to a liquid form and which is subject to regasification.

The term "*Synthetic Gas*" shall mean gas produced by the conversion of coal, oil, naphtha, oil shale or any other substance from a solid or a liquid to a gaseous state, but shall not include gas produced by the regasification of Liquefied Natural Gas.

The term "*Therms*" shall mean 100,000 British thermal units.

SECTION 2.04. *Treatment of Certain Amounts.* For all purposes of the Mortgage (including all calculations thereunder), so long as any bonds of the Eleventh Series remain Outstanding, as defined in Section 2 of the Mortgage:

(i) any cash deposited under the provisions of this Article shall be deemed to be Funded Cash; and

(ii) any bonds of the Eleventh Series delivered to the Corporate Trustee pursuant to the provisions of this Article shall, after such delivery, be deemed to have been retired by the use of Funded Cash.

Any bonds issued under the Mortgage, delivered to or deposited with the Corporate Trustee by the Company pursuant to the provisions of this Section, shall forthwith be canceled by the Corporate Trustee.

SECTION 2.05. *Waivers.* Any provision of this Article II may be waived with, and only with, the consent of the holders of 100% of the aggregate unpaid principal amount of the bonds of the Eleventh Series.

ARTICLE III.

Miscellaneous Provisions.

SECTION 3.01. Subject to the amendments provided for in this Tenth Supplemental Indenture, the terms defined in the Mortgage, as heretofore

supplemented, shall, for all purposes of this Tenth Supplemental Indenture, have the meanings specified in the Mortgage, as heretofore supplemented.

SECTION 3.02. Section 55 of the Mortgage, as amended, is hereby further amended by inserting the words "and subject to the provisions of Article II of the Tenth Supplemental Indenture dated as of January 1, 1975," after the words "April 1, 1971".

SECTION 3.03. So long as any bonds of the Eleventh Series remain Outstanding, subdivision (c) of Section 65 of the Mortgage is hereby amended to read as follows:

"(c) (1) Failure to pay interest upon or principal (whether at maturity as therein expressed or by declaration, or otherwise) of any Outstanding Qualified Lien Bonds continued beyond the period of grace, if any, specified in the Qualified Lien securing the same; or (2) failure to pay the principal of, or premium, if any, or interest on (whether at maturity or any prepayment or interest payment date as therein expressed, or by acceleration or otherwise) any of the Company's Secured Notes due 1984 issued under its Note Purchase Agreements dated December 31, 1974, when any such payment is due and such failure shall have continued beyond any applicable period of grace specified in such Agreements."

SECTION 3.04. If for purposes of Section 113 of the Mortgage, the bonds of the Eleventh Series otherwise Outstanding within the meaning of Section 2 of the Mortgage shall at any time be deemed not to be Outstanding, the Company covenants that it will not (i) consent to any amendment or modification of the Mortgage, or of any indenture supplemental thereto (if, in such case, the consent of holders of such bonds of the Eleventh Series would be required if such bonds had been deemed to be Outstanding for purposes of such Section), unless prior thereto the Company, treating the bonds of the Eleventh Series as Outstanding for this purpose, has obtained the consent of the holders of the requisite percentage in aggregate principal amount of First Mortgage Bonds then Outstanding, or (ii) without the prior written consent of holders of not less than 66⅔% of the aggregate principal amount of Bonds of the Eleventh Series then Outstanding within the meaning of Section 2 of the Mortgage, consent to any amendment or modification of this Tenth Supplemental Indenture.

SECTION 3.05. The Trustees hereby accept the trusts hereby declared provided, created or supplemented, and agree to perform the same upon the

terms and conditions herein and in the Mortgage, as heretofore supplemented, set forth, including the following:

The Trustees shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Tenth Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made by the Company solely. In general each and every term and condition contained in Article XVII of the Mortgage shall apply to and form part of this Tenth Supplemental Indenture with the same force and effect as if the same were herein set forth in full, with such omissions, variations and insertions, if any, as may be appropriate to make the same conform to the provisions of the Tenth Supplemental Indenture.

SECTION 3.06. To the extent permitted by Sections 88 and 89 of the Mortgage, the Trustees or either of them may rely and shall be protected in acting upon any certificate delivered under Article I or Article II and believed by them, it or him to be genuine and to have been signed or presented by the proper party or parties.

SECTION 3.07. Whenever in this Tenth Supplemental Indenture any of the parties hereto is named or referred to, this shall, subject to the provisions of Articles XVI and XVII of the Mortgage, be deemed to include the successors or assigns of such party, and all the covenants and agreements in this Tenth Supplemental Indenture contained by or on behalf of the Company or by or on behalf of the Trustees shall bind and inure to the benefit of the respective successors and assigns of such parties whether so expressed or not.

SECTION 3.08. Nothing in this Tenth Supplemental Indenture, expressed or implied, is intended, or shall be construed, to confer upon, or to give to, any person, firm or corporation, other than the parties hereto and the holders of the bonds and coupons outstanding under the Mortgage, any right, remedy, or claim under or by reason of this Tenth Supplemental Indenture or any covenant, condition, stipulation, promise or agreement hereof, and all the covenants, conditions, stipulations, promises and agreements by or on behalf of the Company as set forth in this Tenth Supplemental Indenture shall be for the sole and exclusive benefit of the parties hereto, and of the holders of the bonds and of the coupons outstanding under the Mortgage.

SECTION 3.09. This Tenth Supplemental Indenture has been executed in several identical counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, Northwest Natural Gas Company, party hereto of the first part, has caused its corporate name to be hereunto affixed, and this

instrument to be signed and sealed by its President or one of its Vice Presidents, and its corporate seal to be attested by its Secretary or one of its Assistant Secretaries for and in its behalf on the 13th day of January, 1975, as of January 1, 1975 in the City of Portland, Oregon; Bankers Trust Company, one of the parties hereto of the second part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by one of its Vice Presidents or one of its Assistant Vice Presidents and its corporate seal to be attested by one of its Assistant Secretaries; and Stanley Burg, one of the parties hereto of the second part, has hereunto set his hand and affixed his seal, all in The City of New York, on the 16th day of January, 1975, as of January 1, 1975.

NORTHWEST NATURAL GAS COMPANY

By FRANCIS F. HILL
President.

Attest:

W. E. RADFORD
Secretary.

Executed, sealed and delivered by **NORTHWEST NATURAL GAS COMPANY** in the presence of:

[CORPORATE SEAL]

JOSEPH S. LONG
KATHLEEN SKINNER

BANKERS TRUST COMPANY, as Trustee,

By W. L. TISCHLER
Assistant Vice President.

Attest:

JUNE A. GRABER
Assistant Secretary.

STANLEY BURG (L.S.)
STANLEY BURG, as Trustee.

Executed, sealed and delivered by **BANKERS TRUST COMPANY** and **STANLEY BURG** in the presence of:

[CORPORATE SEAL]

S. D. MINEO
K. MCGRAW

STATE OF OREGON }
COUNTY OF MULTNOMAH } ss.:

January 13, A. D. 1975.

Before me personally appeared FRANCIS F. HILL, who, being duly sworn, did say that he is President of NORTHWEST NATURAL GAS COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 13th day of January, 1975, before me personally appeared FRANCIS F. HILL, to me known to be President of NORTHWEST NATURAL GAS COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

H. W. PIERCE
Notary Public for Oregon

My commission expires January 25, 1984

[NOTARIAL SEAL]

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

January 16, A. D. 1975.

Before me personally appeared W. L. TISCHLER, who, being duly sworn, did say that he is an Assistant Vice President of BANKERS TRUST COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 16th day of January, 1975, before me personally appeared W. L. TISCHLER, to me known to be an Assistant Vice President of BANKERS TRUST COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

[NOTARIAL SEAL]

CHRISTINE GERACE
CHRISTINE GERACE
Notary Public, State of New York
No. 43-1407147
Qualified in Richmond County
Certificate filed in New York County
Commission Expires March 30, 1975

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

January 16, A. D. 1975.

Before me personally appeared the above-named STANLEY BURG and acknowledged the foregoing instrument to be his voluntary act and deed.

On this day personally appeared before me STANLEY BURG to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 16th day of January, 1975.

[NOTARIAL SEAL]

CHRISTINE GERACE
CHRISTINE GERACE
Notary Public, State of New York
No. 43-1407147
Qualified in Richmond County
Certificate filed in New York County
Commission Expires March 30, 1975

SUMMARY OF RECORDING DATA

IN THE STATE OF OREGON

Real Property Mortgage Records

<u>Counterpart No.</u>	<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
16	Benton	January 27, 1975	53450	—
17	Clackamas	January 27, 1975	75-2101	—
18	Clatsop	January 27, 1975	406	698
19	Columbia	January 27, 1975	131	162
20	Coos	January 27, 1975	75 1-109240/65	—
21	Douglas	January 27, 1975	562	540
22	Hood River	January 27, 1975	750137	—
23	Lane	January 27, 1975	727 R	—
24	Lincoln	January 28, 1975	54	970
25	Linn	January 27, 1975	MF 101	828
26	Marion	January 27, 1975	7	1849
13	Multnomah	January 21, 1975	1024	1415
27	Polk	January 27, 1975	67	212
28	Tillamook	January 27, 1975	239	329
29	Wasco	January 27, 1975	750186	26
30	Washington	January 28, 1975	1009	141
31	Yamhill	January 27, 1975	104	150

Filed as a Financing Statement

<u>Counterpart No.</u>	<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
14	Secretary of State	January 28, 1975	D-05654

(An executed counterpart of the Tenth Supplemental Indenture was filed on February 12, 1975, in the office of the Auditor of the City of Portland.)

IN THE STATE OF WASHINGTON

Real Property Mortgage Records

<u>Counterpart No.</u>	<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
33	Clark	January 27, 1975	G 681197	943795
34	Klickitat	January 27, 1975	112	9
35	Skamania	January 27, 1975	52	420

Filed as a Financing Statement

<u>Counterpart No.</u>	<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
32	Secretary of State	January 27, 1975	0282357

NORTHWEST NATURAL GAS COMPANY

TO

BANKERS TRUST COMPANY

AND

STANLEY BURG

(SUCCESSOR TO R. G. PAGE AND J. C. KENNEDY),

As Trustees under the Mortgage and Deed
of Trust, dated as of July 1, 1946, of
Portland Gas & Coke Company (now
Northwest Natural Gas Company)

Eleventh Supplemental Indenture

providing among other things for
First Mortgage Bonds, 10½% Series due 1986

Dated as of December 1, 1975

ELEVENTH SUPPLEMENTAL INDENTURE

INDENTURE, dated as of the 1st day of December, 1975, made and entered into by and between NORTHWEST NATURAL GAS COMPANY (formerly Portland Gas & Coke Company), a corporation of the State of Oregon, whose post office address is Suite 300, 200 S.W. Market Street, Portland, Oregon 97201 (hereinafter sometimes called the Company), party of the first part, and BANKERS TRUST COMPANY, a corporation of the State of New York, whose post office address is One Bankers Trust Plaza, New York, New York 10005 (hereinafter sometimes called the Corporate Trustee) and STANLEY BURG (successor to R. G. PAGE and J. C. KENNEDY), whose post office address is 23 Dover Green, Staten Island, New York 10312 (hereinafter sometimes called the Co-Trustee), parties of the second part (the Corporate Trustee and the Co-Trustee being hereinafter together sometimes called the Trustees), as Trustees under the Mortgage and Deed of Trust, dated as of July 1, 1946 (hereinafter called the Mortgage), executed and delivered by Portland Gas & Coke Company (now Northwest Natural Gas Company) to secure the payment of bonds issued or to be issued under and in accordance with the provisions of the Mortgage, this indenture (hereinafter called Eleventh Supplemental Indenture) being supplemental thereto;

WHEREAS the Mortgage was or is to be recorded in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Eleventh Supplemental Indenture is to be recorded; and

WHEREAS by the Mortgage the Company covenanted that it would execute and deliver such supplemental indenture or indentures and such further instruments and do such further acts as might be necessary or proper to carry out more effectually the purposes of the Mortgage and to make subject to the lien of the Mortgage any property thereafter acquired, made or constructed and intended to be subject to the lien thereof; and

WHEREAS the Company executed and delivered to the Trustees its First Supplemental Indenture, dated as of June 1, 1949 (hereinafter called its First Supplemental Indenture), its Second Supplemental Indenture, dated as of March 1, 1954 (hereinafter called its Second Supplemental Indenture), its Third Supplemental Indenture, dated as of April 1, 1956 (hereinafter called its Third Supplemental Indenture), its Fourth Supplemental Indenture, dated as of February 1, 1959 (hereinafter called its Fourth Supple-

mental Indenture), its Fifth Supplemental Indenture, dated as of July 1, 1961 (hereinafter called its Fifth Supplemental Indenture), its Sixth Supplemental Indenture, dated as of January 1, 1964 (hereinafter called its Sixth Supplemental Indenture), its Seventh Supplemental Indenture, dated as of March 1, 1966 (hereinafter called its Seventh Supplemental Indenture), its Eighth Supplemental Indenture, dated as of December 1, 1969 (hereinafter called its Eighth Supplemental Indenture) and its Ninth Supplemental Indenture, dated as of April 1, 1971 (hereinafter called its Ninth Supplemental Indenture); and

WHEREAS said First through Ninth Supplemental Indentures were filed for record, and were recorded and indexed, as a mortgage of both real and personal property, in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Eleventh Supplemental Indenture is to be recorded; and

WHEREAS the Company executed and delivered to the Trustees its Tenth Supplemental Indenture, dated as of January 1, 1975 (hereinafter called its Tenth Supplemental Indenture); and

WHEREAS said Tenth Supplemental Indenture was filed for record, and was recorded and indexed, as a mortgage of both real and personal property, and financing statements were filed, in the official records of the several counties and other offices in the States of Oregon and Washington listed below, as follows:

OREGON

Real Property Mortgage Records

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Benton	January 27, 1975	53450	—
Clackamas	January 27, 1975	75-2101	—
Clatsop	January 27, 1975	406	698
Columbia	January 27, 1975	131	162
Coos	January 27, 1975	75 1-109240/65	—
Douglas	January 27, 1975	562	540
Hood River	January 27, 1975	750137	—
Lane	January 27, 1975	727 R	—
Lincoln	January 28, 1975	54	970
Linn	January 27, 1975	MF 101	828
Marion	January 27, 1975	7	1849
Multnomah	January 21, 1975	1024	1415
Polk	January 27, 1975	67	212
Tillamook	January 27, 1975	239	329
Wasco	January 27, 1975	750186	26
Washington	January 28, 1975	1009	141
Yamhill	January 27, 1975	104	150

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
Secretary of State	January 28, 1975	D-05654

(An executed counterpart of the Tenth Supplemental Indenture was filed on February 12, 1975, in the office of the Auditor of the City of Portland.)

WASHINGTON

Real Property Mortgage Records

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Clark	January 27, 1975	G 681197	943795
Klickitat	January 27, 1975	112	9
Skamania	January 27, 1975	52	420

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
Secretary of State	January 27, 1975	0282357
; and		

WHEREAS an instrument dated as of June 14, 1951, was executed by the Company appointing J. C. Kennedy as Co-Trustee in succession to said R. G. Page (resigned) under the Mortgage and by J. C. Kennedy accepting the appointment as Co-Trustee under the Mortgage in succession to the said R. G. Page, which instrument was recorded in various counties in the States of Oregon and Washington; and

WHEREAS, in the Ninth Supplemental Indenture STANLEY BURG was appointed by the Company as Co-Trustee under the Mortgage in succession to said J. C. KENNEDY (resigned) and in the Ninth Supplemental Indenture Stanley Burg accepted such appointment as Co-Trustee under the Mortgage in succession to said J. C. Kennedy; and

WHEREAS in addition to the property described in the Mortgage, as heretofore supplemented, the Company has acquired certain other property, rights and interests in property; and

WHEREAS, the Company has heretofore issued, in accordance with the provisions of the Mortgage, as supplemented, the following series of First Mortgage Bonds:

<u>Series</u>	<u>Principal Amount Outstanding</u>
3½ % Series due 1976.....	\$10,000,000
3½ % Series due 1974.....	None
4 % Series due 1974.....	None
4¾ % Series due 1976.....	\$ 1,742,000
5¼ % Series due 1984.....	\$ 4,941,000
5¼ % Series due 1986.....	\$ 5,045,000
4¾ % Series due 1989.....	\$ 5,854,000
5¾ % Series due 1991.....	\$13,849,000
9¾ % Series due 1974.....	None
8¾ % Series due 1996.....	\$17,283,000
12 % Series due 1984.....	\$30,000,000;

and

WHEREAS Section 8 of the Mortgage provides that the form of each series of bonds (other than the First Series) issued thereunder shall be established by Resolution of the Board of Directors of the Company; that the form of such series, as established by said Board of Directors, shall specify the descriptive title of the bonds and various other terms thereof; and that such Series may also contain such provisions not inconsistent with the pro-

visions of the Mortgage as the Board of Directors may, in its discretion, cause to be inserted therein expressing or referring to the terms and conditions upon which such bonds are to be issued and/or secured under the Mortgage; and

WHEREAS Section 120 of the Mortgage provides, among other things, that any power, privilege or right expressly or impliedly reserved to or in any way conferred upon the Company by any provision of the Mortgage, whether such power, privilege or right is in any way restricted or is unrestricted, may (to the extent permitted by law) be in whole or in part waived or surrendered or subjected to any restriction if at the time unrestricted or to additional restriction if already restricted, and the Company may enter into any further covenants, limitations or restrictions for the benefit of any one or more series of bonds issued thereunder, or the Company may cure any ambiguity contained therein or in any supplemental indenture or may (in lieu of establishment by Resolution as provided in Section 8 of the Mortgage) establish the terms and provisions of any series of bonds other than said First Series, by an instrument in writing executed and acknowledged by the Company in such manner as would be necessary to entitle a conveyance of real estate to record in all of the states in which any property at the time subject to the lien of the Mortgage shall be situated; and

WHEREAS the Company now desires to create a new series of bonds and (pursuant to the provisions of Section 120 of the Mortgage) to add to its covenants and agreements contained in the Mortgage, as heretofore supplemented, certain other covenants and agreements to be observed by it and to alter and amend in certain respects the covenants and provisions contained in the Mortgage, as heretofore supplemented and amended; and

WHEREAS the execution and delivery by the Company of this Eleventh Supplemental Indenture, and the terms of the bonds of the Twelfth Series hereinafter referred to, have been duly authorized by the Board of Directors of the Company by appropriate resolutions of said Board of Directors;

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

That Northwest Natural Gas Company, in consideration of the premises and of One Dollar to it duly paid by the Trustees at or before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, and in further assurance of the estate, title and rights of the Trustees, and in order further to secure the payment both of the principal of and interest and

premium, if any, on the bonds from time to time issued under the Mortgage, according to their tenor and effect, and the performance of all the provisions of the Mortgage (including any instruments supplemental thereto and any modification made as in the Mortgage provided) and of said bonds, hereby grants, bargains, sells, releases, conveys, assigns, transfers, mortgages, pledges, sets over and confirms (subject, however, to Excepted Encumbrances, as defined in Section 6 of the Mortgage) unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees under the Mortgage, and to their successor or successors in said trust, and to said Trustees and their successors and assigns forever, all property, real, personal and mixed, acquired by the Company after the date of the Mortgage, of the kind or nature specifically mentioned in Article XXI of the Mortgage or of any other kind or nature (except any herein or in the Mortgage expressly excepted) now owned or, subject to the provisions of subsection (I) of Section 87 of the Mortgage, hereafter acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) and wheresoever situated, including (without in anywise limiting or impairing by the enumeration of the same the scope and intent of the foregoing) all lands, gas plants, by-product plants, gas holders, gas mains and pipes; all power sites, water rights, reservoirs, canals, raceways, dams, aqueducts, and all other rights or means for appropriating, conveying, storing and supplying water; all rights of way and roads; all plants for the generation of electricity by steam, water and/or other power; all power houses, street lighting systems, standards and other equipment incidental thereto, telephone, radio, television and air-conditioning systems and equipment incidental thereto, water works, water systems, steam heat and hot water plants, substations, lines, service and supply systems, bridges, culverts, tracts, ice or refrigeration plants and equipment, offices, buildings and other structures and the equipment thereof; all machinery, engines, boilers, dynamos, gas, electric and other machines, regulators, meters, transformers, generators, motors, gas, electrical and mechanical appliances, conduits, cables, gas, water, steam heat or other pipes, service pipes, fittings, valves and connections, pole and transmission lines, wires, cables, tools, implements, apparatus, furniture and chattels; all franchises, consents or permits; all lines for the transmission and distribution of gas, electric current, steam heat or water for any purpose including mains, pipes, conduits, towers, poles, wires, cables, ducts and all apparatus for use in connection therewith; all real estate, lands, easements, servitudes, licenses, permits, franchises, privileges, rights of way and other rights in or relating to public or private property, real or personal, or the

occupancy of such property and (except as herein or in the Mortgage, as heretofore supplemented, expressly excepted) all right, title and interest the Company may now have or may hereafter acquire in and to any and all property of any kind or nature wheresoever situated.

TOGETHER WITH all and singular the tenements, hereditaments, prescriptions, servitudes and appurtenances belonging or in anywise appertaining to the aforementioned property or any part thereof, with the reversion and reversions, remainder and remainders and (subject to the provisions of Section 57 of the Mortgage) the tolls, rents, revenues, issues, earnings, income, product and profits thereof, and all the estate, right, title and interest and claim whatsoever, at law as well as in equity, which the Company now has or may hereafter acquire in and to the aforementioned property and franchises and every part and parcel thereof.

IT IS HEREBY AGREED by the Company that, subject to the provisions of subsection (I) of Section 87 of the Mortgage, all the property, rights, and franchises acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) after the date hereof, except any herein or in the Mortgage, as heretofore supplemented, expressly excepted, shall be and are as fully granted and conveyed hereby and by the Mortgage, and as fully embraced within the lien hereof and the lien of the Mortgage, as supplemented, as if such property, rights and franchises were now owned by the Company and were specifically described herein or in the Mortgage, as heretofore supplemented, and conveyed hereby or thereby.

Provided that the following are not and are not intended to be now or hereafter granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed hereunder and are hereby expressly excepted from the lien and operation of this Eleventh Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, viz: (1) cash, shares of stock, bonds, notes and other obligations and other securities not hereafter specifically pledged, paid, deposited, delivered or held under the Mortgage, as heretofore supplemented, or covenanted so to be; (2) merchandise, equipment, apparatus, materials or supplies held for the purpose of sale or other disposition in the usual course of business; fuel, oil and similar materials and supplies consumable in the operation of any of the properties of the Company; all aircraft, tractors, rolling stock, trolley coaches, buses, motor coaches, automobiles, motor trucks, and other vehicles and

materials and supplies held for the purpose of repairing or replacing (in whole or part) any of the same; (3) bills, notes and accounts receivable, judgments, demands and choses in action, and all contracts, leases and operating agreements not specifically pledged under the Mortgage, as heretofore supplemented, or covenanted so to be; (4) the last day of the term of any lease or leasehold which may be or become subject to the lien of the Mortgage; (5) gas, petroleum, carbon, chemicals, light oils, tar products, electric energy, steam, water, ice, and other materials or products, manufactured, stored, generated, produced, purchased or acquired by the Company for sale, distribution or use in the ordinary course of its business; all timber, minerals, mineral rights and royalties and all Natural Gas and Oil Production Property, as defined in Section 4 of the Mortgage; and (6) the Company's franchise to be a corporation; provided, however, that the property and rights expressly excepted from the lien and operation of this Eleventh Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, in the above subdivisions (2) and (3) shall (to the extent permitted by law) cease to be so excepted in the event and as of the date that either or both of the Trustees or a receiver or trustee shall enter upon and take possession of the Mortgaged and Pledged Property in the manner provided in Article XIII of the Mortgage by reason of the occurrence of a Default as defined in Section 65 thereof.

TO HAVE AND TO HOLD all such properties, real, personal and mixed, granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed by the Company as aforesaid, or intended so to be, unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees, and their successors and assigns forever.

IN TRUST NEVERTHELESS, for the same purposes and upon the same terms, trusts and conditions and subject to and with the same provisos and covenants as are set forth in the Mortgage, as heretofore supplemented, this Eleventh Supplemental Indenture being supplemental thereto.

AND IT IS HEREBY COVENANTED by the Company that all the terms, conditions, provisos, covenants and provisions contained in the Mortgage, as heretofore supplemented, shall affect and apply to the property hereinbefore described and conveyed, and to the estates, rights, obligations and duties of the Company and the Trustees and the beneficiaries of the trust with respect to said property, and to the Trustees and their successors in the trust, in the

same manner and with the same effect as if the said property had been owned by the Company at the time of the execution of the Mortgage, and had been specifically and at length described in and conveyed to said Trustees by the Mortgage as a part of the property therein stated to be conveyed.

The Company further covenants and agrees to and with the Trustees and their successors in said trust under the Mortgage, as follows:

ARTICLE I.

Twelfth Series of Bonds.

SECTION 1.01. There shall be a series of bonds designated "10½ % Series due 1986" (herein sometimes referred to as the "Twelfth Series"), each of which shall also bear the descriptive title First Mortgage Bond, and the form thereof, which shall be established by Resolution of the Board of Directors of the Company, shall contain suitable provisions with respect to the matters hereinafter in this Section specified. Bonds of the Twelfth Series shall be limited to \$20,000,000 in aggregate principal amount at any one time Outstanding except as provided in Section 16 of the Mortgage and shall mature on January 1, 1986, and shall be issued as fully registered bonds in denominations of One Thousand Dollars and, at the option of the Company, in any multiple or multiples of One Thousand Dollars (the exercise of such option to be evidenced by the execution and delivery thereof); they shall bear interest at the rate of 10½ % per annum, the first interest payment to be made on July 1, 1976, for the period from December 11, 1975, to July 1, 1976, with subsequent interest payments to be made semi-annually on July 1 and January 1 of each year; and the principal of, premium, if any, and interest on each said bond shall be payable at the office or agency of the Company in the Borough of Manhattan, The City of New York, in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts. Bonds of the Twelfth Series shall be dated as in Section 10 of the Mortgage provided.

(I) Bonds of the Twelfth Series shall be redeemable either at the option of the Company or pursuant to the requirements of the Mortgage in whole at any time, or in part from time to time, prior to maturity, upon notice, as provided in Section 52 of the Mortgage, mailed at least thirty (30) days prior

to the date fixed for redemption, at the following general redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

GENERAL REDEMPTION PRICES

If redeemed prior to January 1, 1977, 110.50% and if redeemed during the 12 months period ending December 31,

1977	109.19%	1982	102.63%
1978	107.88%	1983	101.31%
1979	106.56%	1984	100.00%
1980	105.25%	1985	100.00%
1981	103.94%		

in each case, together with accrued interest to the date fixed for redemption; provided, however, that no bonds of the Twelfth Series may be redeemed pursuant to this subdivision (I) prior to December 1, 1983, as part of any refunding operation involving, directly or indirectly, the incurring of indebtedness by the Company having a cost (calculated in accordance with acceptable financial practice) lower than 10.50% per annum.

(II) Bonds of the Twelfth Series shall also be redeemable in whole at any time, or in part from time to time, prior to maturity, upon like notice, by the application (either at the option of the Company or pursuant to the requirements of the Mortgage) of cash deposited with the Corporate Trustee pursuant to the provisions of Section 39 or (so long as any bonds of the First, Fourth, Fifth, Sixth, Seventh, Eighth, Tenth or Eleventh Series remain Outstanding) Section 64 of the Mortgage or with the Proceeds of Released Property, at the following special redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

SPECIAL REDEMPTION PRICES

If redeemed prior to January 1, 1977, 100.00% and if redeemed during the 12 months period ending December 31,

1977	100.00%	1982	100.00%
1978	100.00%	1983	100.00%
1979	100.00%	1984	100.00%
1980	100.00%	1985	100.00%
1981	100.00%		

in each case, together with accrued interest to the date fixed for redemption.

ARTICLE II.**Exchanges and Transfers of Bonds of the Twelfth Series.**

SECTION 2.01. At the option of the registered owner, any bonds of the Twelfth Series, upon surrender thereof, for cancellation, at the office or agency of the Company in the Borough of Manhattan, The City of New York, shall (subject to the provisions of Section 12 of the Mortgage) be exchangeable for a like aggregate principal amount of bonds of the same series of other authorized denominations.

Transfers of bonds of the Twelfth Series may be registered (subject to the provisions of Section 12 of the Mortgage) at the office or agency of the Company in the Borough of Manhattan, The City of New York or such other locations as the Company may designate from time to time.

Upon any registration of transfer or exchange of bonds of the Twelfth Series, the Company may make a charge therefor sufficient to reimburse it for any tax or taxes or other governmental charge, as provided in Section 12 of the Mortgage, but the Company hereby waives any right to make a charge in addition thereto for any registration or exchange or transfer of bonds of the Twelfth Series.

ARTICLE III.**Miscellaneous Provisions.**

SECTION 3.01. The Corporate Trustee may, from time to time, appoint an authenticating agent or agents to act on its behalf and subject to its direction in connection with the authentication of bonds issued from time to time in fully registered form under the Mortgage as heretofore or hereafter amended or supplemented. Any such authenticating agent shall, so long as it so acts hereunder, be a bank or trust company and be a corporation organized and doing business under the laws of the United States or of any State or Territory or of the District of Columbia, with a combined capital and surplus of at least Five Million Dollars (\$5,000,000), and be authorized under such laws to act as authenticating agent and be subject to supervision or examination by Federal, State, Territorial, or District of Columbia authority. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of the aforesaid supervising or examining authority, then for the purposes of this Section the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published.

Any corporation into which any authenticating agent may be merged or converted or with which it may be consolidated, of any corporation resulting from any merger, conversion or consolidation to which any authenticating agent shall be a party, or any corporation succeeding to the corporate agency business of any authenticating agent, shall, if otherwise eligible under the provisions of this Section, continue to be an authenticating agent without the execution or filing of any paper or any further act on the part of the Corporate Trustee or the predecessor authenticating agent.

Any authenticating agent may at any time resign by giving written notice of resignation to the Corporate Trustee and to the Company. The Corporate Trustee may at any time terminate the agency of any authenticating agent by giving written notice of termination to such authenticating agent and to the Company. Any successor authenticating agent upon acceptance of its appointment hereunder shall become vested with all the rights, powers, duties and responsibilities of its predecessor hereunder, with like effect as if originally named as an authenticating agent herein. No successor authenticating agent shall be appointed unless eligible under the provisions of this Section.

The Corporate Trustee agrees to pay to any authenticating agent from time to time reasonable compensation for its services, and the Corporate Trustee shall be entitled to be reimbursed for such payments, and be entitled to the benefits of Section 96 of the Mortgage, with respect thereto.

SECTION 3.02. When all bonds of the First, Fourth, Fifth, Sixth, Seventh, Eighth, Tenth and Eleventh Series are no longer Outstanding, Section 64 shall be excised from the Mortgage.

SECTION 3.03. Subject to the amendments provided for in this Eleventh Supplemental Indenture, the terms defined in the Mortgage, as heretofore supplemented, shall, for all purposes of this Eleventh Supplemental Indenture, have the meanings specified in the Mortgage, as heretofore supplemented.

SECTION 3.04. The Trustees hereby accept the trusts hereby declared provided, created or supplemented, and agree to perform the same upon the terms and conditions herein and in the Mortgage, as heretofore supplemented, set forth, including the following:

The Trustees shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Eleventh Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals

are made by the Company solely. In general each and every term and condition contained in Article XVII of the Mortgage shall apply to and form part of this Eleventh Supplemental Indenture with the same force and effect as if the same were herein set forth in full, with such omissions, variations and insertions, if any, as may be appropriate to make the same conform to the provisions of the Eleventh Supplemental Indenture.

SECTION 3.05. Whenever in this Eleventh Supplemental Indenture any of the parties hereto is named or referred to, this shall, subject to the provisions of Articles XVI and XVII of the Mortgage, be deemed to include the successors or assigns of such party, and all the covenants and agreements in this Eleventh Supplemental Indenture contained by or on behalf of the Company or by or on behalf of the Trustees shall bind and inure to the benefit of the respective successors and assigns of such parties whether so expressed or not.

SECTION 3.06. Nothing in this Eleventh Supplemental Indenture, expressed or implied, is intended, or shall be construed, to confer upon, or to give to, any person, firm or corporation, other than the parties hereto and the holders of the bonds and coupons outstanding under the Mortgage, any right, remedy, or claim under or by reason of this Eleventh Supplemental Indenture or any covenant, condition, stipulation, promise or agreement hereof, and all the covenants, conditions, stipulations, promises and agreements by or on behalf of the Company as set forth in this Eleventh Supplemental Indenture shall be for the sole and exclusive benefit of the parties hereto, and of the holders of the bonds and of the coupons outstanding under the Mortgage.

SECTION 3.07. This Eleventh Supplemental Indenture has been executed in several identical counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, Northwest Natural Gas Company, party hereto of the first part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by its President or one of its Vice Presidents, and its corporate seal to be attested by its Secretary or one of its Assistant Secretaries for and in its behalf on the 3rd day of December, 1975, as of December 1, 1975, in The City of New York; Bankers Trust Company, one of the parties hereto of the second part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by one of its Vice Presidents or one of its Assistant Vice Presidents and its

corporate seal to be attested by one of its Assistant Secretaries; and Stanley Burg, one of the parties hereto of the second part, has hereunto set his hand and affixed his seal, all in The City of New York, on the 3rd day of December, 1975, as of December 1, 1975.

NORTHWEST NATURAL GAS COMPANY

By
President.

Attest:

.....
Secretary.

Executed, sealed and delivered by NORTHWEST
NATURAL GAS COMPANY in the presence of:

.....
.....

BANKERS TRUST COMPANY, as Trustee,

By
Assistant Vice President.

Attest:

.....
Assistant Secretary.

.....
STANLEY BURG, *as Trustee.*

Executed, sealed and delivered by BANKERS
TRUST COMPANY and STANLEY BURG in
the presence of:

.....
.....

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

December 3, A.D. 1975.

Before me personally appeared RONALD T. MILLER, who, being duly sworn, did say that he is President of NORTHWEST NATURAL GAS COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 3rd day of December, 1975, before me personally appeared RONALD T. MILLER, to me known to be President of NORTHWEST NATURAL GAS COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

.....
MORTON BARAD
Notary Public, State of New York
No. 41-5170980
Certs. filed in Bronx, Kings, Nassau,
New York, and Westchester Cos.
Qualified in Queens County
Commission Expires March 30, 1976

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

December 3, A. D. 1975.

Before me personally appeared ROMANO I. PELUSO, who, being duly sworn, did say that he is an Assistant Vice President of BANKERS TRUST COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 3rd day of December, 1975, before me personally appeared ROMANO I. PELUSO, to me known to be an Assistant Vice President of BANKERS TRUST COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

.....
LYLE TEMPLE
Notary Public, State of New York
No. 30-3948960
Qualified in Nassau County
Certificate filed in New York County
Commission Expires March 30, 1977

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

December 3, A. D. 1975.

Before me personally appeared the above-named STANLEY BURG and acknowledged the foregoing instrument to be his voluntary act and deed.

On this day personally appeared before me STANLEY BURG to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 3rd day of December, 1975.

.....
LYLE TEMPLE
Notary Public, State of New York
No. 30-3948960
Qualified in Nassau County
Certificate filed in New York County
Commission Expires March 30, 1977

NORTHWEST NATURAL GAS COMPANY

TO

BANKERS TRUST COMPANY

AND

STANLEY BURG

(SUCCESSOR TO R. G. PAGE AND J. C. KENNEDY),

**As Trustees under the Mortgage and Deed of
Trust, dated as of July 1, 1946, of Portland
Gas & Coke Company (now Northwest Natu-
ral Gas Company)**

TWELFTH SUPPLEMENTAL INDENTURE

**providing among other things for
First Mortgage Bonds, 14¾% Series due 1989**

Dated as of July 1, 1981

TWELFTH SUPPLEMENTAL INDENTURE

INDENTURE, dated as of the 1st day of July, 1981, made and entered into by and between NORTHWEST NATURAL GAS COMPANY (formerly Portland Gas & Coke Company), a corporation of the State of Oregon, whose post office address is Suite 1900, 200 S.W. Market Street, Portland, Oregon 97201 (hereinafter sometimes called the Company), party of the first part, and BANKERS TRUST COMPANY, a corporation of the State of New York, whose post office address is One Bankers Trust Plaza, New York, New York 10005 (hereinafter sometimes called the Corporate Trustee) and STANLEY BURG (successor to R. G. PAGE and J. C. KENNEDY), whose post office address is 23 Dover Green, Staten Island, New York 10312 (hereinafter sometimes called the Co-Trustee), parties of the second part (the Corporate Trustee and the Co-Trustee being hereinafter together sometimes called the Trustees), as Trustees under the Mortgage and Deed of Trust, dated as of July 1, 1946 (hereinafter called the Mortgage), executed and delivered by Portland Gas & Coke Company (now Northwest Natural Gas Company) to secure the payment of bonds issued or to be issued under and in accordance with the provisions of the Mortgage, this indenture (hereinafter called Twelfth Supplemental Indenture) being supplemental thereto;

WHEREAS the Mortgage was or is to be recorded in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Twelfth Supplemental Indenture is to be recorded; and

WHEREAS by the Mortgage the Company covenanted that it would execute and deliver such supplemental indenture or indentures and such further instruments and do such further acts as might be necessary or proper to carry out more effectually the purposes of the Mortgage and to make subject to the lien of the Mortgage any property thereafter acquired, made or constructed and intended to be subject to the lien thereof; and

WHEREAS the Company executed and delivered to the Trustees its First Supplemental Indenture, dated as of June 1, 1949 (hereinafter called its First Supplemental Indenture), its Second Supplemental Indenture, dated as of March 1, 1954 (hereinafter called its Second Supplemental Indenture), its Third Supplemental Indenture, dated as of April 1, 1956 (hereinafter called its Third Supplemental Indenture), its Fourth Supplemental Indenture, dated as of February 1, 1959 (hereinafter called its Fourth Supplemental

Indenture), its Fifth Supplemental Indenture, dated as of July 1, 1961 (hereinafter called its Fifth Supplemental Indenture), its Sixth Supplemental Indenture, dated as of January 1, 1964 (hereinafter called its Sixth Supplemental Indenture), its Seventh Supplemental Indenture, dated as of March 1, 1966 (hereinafter called its Seventh Supplemental Indenture), its Eighth Supplemental Indenture, dated as of December 1, 1969 (hereinafter called its Eighth Supplemental Indenture), its Ninth Supplemental Indenture, dated as of April 1, 1971 (hereinafter called its Ninth Supplemental Indenture) and its Tenth Supplemental Indenture, dated as of January 1, 1975 (hereinafter called its Tenth Supplemental Indenture); and

WHEREAS said First through Tenth Supplemental Indentures were filed for record, and were recorded and indexed, as a mortgage of both real and personal property, in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Twelfth Supplemental Indenture is to be recorded; and

WHEREAS the Company executed and delivered to the Trustees its Eleventh Supplemental Indenture, dated as of December 1, 1975 (hereinafter called its Eleventh Supplemental Indenture); and

WHEREAS said Eleventh Supplemental Indenture was filed for record, and was recorded and indexed, as a mortgage of both real and personal property, and financing statements were filed, in the official records of the several counties and other offices in the States of Oregon and Washington listed below, as follows:

Oregon			
Real Property Mortgage Records			
<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Benton	December 12, 1975	61642	—
Clackamas	December 12, 1975	75-36719	—
Clatsop	December 12, 1975	421	724
Columbia	December 12, 1975	135	384
Coos	December 15, 1975	75-12	444
Douglas	December 15, 1975	588	45
Hood River	December 12, 1975	752480	—

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Lane.....	December 15, 1975	R-773	—
Lincoln	December 16, 1975	61	804
Linn	December 12, 1975	123	657
Marion.....	December 12, 1975	R-31	1714
Multnomah.....	December 12, 1975	1077	803
Polk.....	December 12, 1975	80	675
Tillamook.....	December 12, 1975	243	227
Wasco.....	December 12, 1975	752912	—
Washington.....	December 12, 1975	1058	710
Yamhill.....	December 12, 1975	109	1101

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
Secretary of State	December 15, 1975	D-30958

Washington

Real Property Mortgage Records

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Clark	December 12, 1975	G 708683	985932
Klickitat	December 15, 1975	113	461
Skamania	December 12, 1975	53	31

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
Secretary of State	December 15, 1975	0321966

; and

WHEREAS an instrument dated as of June 14, 1951, was executed by the Company appointing J. C. KENNEDY as Co-Trustee in succession to said R. G. PAGE (resigned) under the Mortgage and by J. C. KENNEDY accepting the appointment as Co-Trustee under the Mortgage in succession to the said R. G. PAGE, which instrument was recorded in various counties in the States of Oregon and Washington; and

WHEREAS in the Ninth Supplemental Indenture STANLEY BURG was appointed by the Company as Co-Trustee under the Mortgage in succession to said J. C. KENNEDY (resigned) and in the Ninth Supplemental Indenture

STANLEY BURG accepted such appointment as Co-Trustee under the Mortgage in succession to said J. C. KENNEDY; and

WHEREAS in addition to the property described in the Mortgage, as heretofore supplemented, the Company has acquired certain other property, rights and interests in property; and

WHEREAS the Company has heretofore issued, in accordance with the provisions of the Mortgage, as supplemented, the following series of First Mortgage Bonds:

<u>Series</u>	<u>Principal Amount Outstanding</u>
3¼% Series due 1976	None
3¾% Series due 1974	None
4 % Series due 1974	None
4¾% Series due 1976	None
5¼% Series due 1984	\$ 4,941,000 4,279,000
5½% Series due 1986	\$ 5,045,000 4,233,000
4¾% Series due 1989	\$ 5,854,000 4,970,000
5¾% Series due 1991	\$12,849,000 11,828,000
9¾% Series due 1974	None
8¾% Series due 1996	\$17,283,000 15,049,000
12 % Series due 1984	\$21,000,000
10¼% Series due 1986	\$20,000,000

; and

WHEREAS Section 8 of the Mortgage provides that the form of each series of bonds (other than the First Series) issued thereunder shall be established by Resolution of the Board of Directors of the Company; that the form of such series, as established by said Board of Directors, shall specify the descriptive title of the bonds and various other terms thereof; and that such Series may also contain such provisions not inconsistent with the provisions of the Mortgage as the Board of Directors may, in its discretion, cause to be inserted therein expressing or referring to the terms and conditions upon which such bonds are to be issued and/or secured under the Mortgage; and

WHEREAS Section 120 of the Mortgage provides, among other things, that any power, privilege or right expressly or impliedly reserved to or in any

way conferred upon the Company by any provision of the Mortgage, whether such power, privilege or right is in any way restricted or is unrestricted, may (to the extent permitted by law) be in whole or in part waived or surrendered or subjected to any restriction if at the time unrestricted or to additional restriction if already restricted, and the Company may enter into any further covenants, limitations or restrictions for the benefit of any one or more series of bonds issued thereunder, or the Company may cure any ambiguity contained therein or in any supplemental indenture or may (in lieu of establishment by Resolution as provided in Section 8 of the Mortgage) establish the terms and provisions of any series of bonds other than said First Series, by an instrument in writing executed and acknowledged by the Company in such manner as would be necessary to entitle a conveyance of real estate to record in all of the states in which any property at the time subject to the lien of the Mortgage shall be situated; and

WHEREAS the Company now desires to create a new series of bonds and (pursuant to the provisions of Section 120 of the Mortgage) to add to its covenants and agreements contained in the Mortgage, as heretofore supplemented, certain other covenants and agreements to be observed by it and to alter and amend in certain respects the covenants and provisions contained in the Mortgage, as heretofore supplemented and amended; and

WHEREAS the execution and delivery by the Company of this Twelfth Supplemental Indenture, and the terms of the bonds of the Thirteenth Series hereinafter referred to, have been duly authorized by the Board of Directors of the Company by appropriate resolutions of said Board of Directors;

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

That Northwest Natural Gas Company, in consideration of the premises and of One Dollar to it duly paid by the Trustees at or before the sealing and delivery of these presents, the receipt whereof is hereby acknowledged, and in further assurance of the estate, title and rights of the Trustees, and in order further to secure the payment both of the principal of and interest and premium, if any, on the bonds from time to time issued under the Mortgage, according to their tenor and effect, and the performance of all the provisions of the Mortgage (including any instruments supplemental thereto and any modification made as in the Mortgage provided) and of said bonds, hereby grants, bargains, sells, releases,

conveys, assigns, transfers, mortgages, pledges, sets over and confirms (subject, however, to Excepted Encumbrances, as defined in Section 6 of the Mortgage) unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees under the Mortgage, and to their successor or successors in said trust, and to said Trustees and their successors and assigns forever, all property, real, personal and mixed, acquired by the Company after the date of the Mortgage, of the kind or nature specifically mentioned in Article XXI of the Mortgage or of any other kind or nature (except any herein or in the Mortgage expressly excepted) now owned or, subject to the provisions of subsection (I) of Section 87 of the Mortgage, hereafter acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) and wheresoever situated, including (without in anywise limiting or impairing by the enumeration of the same the scope and intent of the foregoing) all lands, gas plants, by-product plants, gas holders, gas mains and pipes; all power sites, water rights, reservoirs, canals, raceways, dams, aqueducts, and all other rights or means for appropriating, conveying, storing and supplying water; all rights of way and roads; all plants for the generation of electricity by steam, water and/or other power; all power houses, street lighting systems, standards and other equipment incidental thereto, telephone, radio, television and air-conditioning systems and equipment incidental thereto, water works, water systems, steam heat and hot water plants, substations, lines, service and supply systems, bridges, culverts, tracts, ice or refrigeration plants and equipment, offices, buildings and other structures and the equipment thereof; all machinery, engines, boilers, dynamos, gas, electric and other machines, regulators, meters, transformers, generators, motors, gas, electrical and mechanical appliances, conduits, cables, gas, water, steam heat or other pipes, service pipes, fittings, valves and connections, pole and transmission lines, wires, cables, tools, implements, apparatus, furniture and chattels; all franchises, consents or permits; all lines for the transmission and distribution of gas, electric current, steam heat or water for any purpose including mains, pipes, conduits, towers, poles, wires, cables, ducts and all apparatus for use in connection therewith; all real estate, lands, easements, servitudes, licenses, permits, franchises, privileges, rights of way and other rights in or relating to public or private property, real or personal, or the occupancy of such property and (except as herein or in the Mortgage, as heretofore supplemented, expressly excepted) all right, title and interest the Company may now have or may

hereafter acquire in and to any and all property of any kind or nature wheresoever situated.

TOGETHER WITH all and singular the tenements, hereditaments, prescriptions, servitudes and appurtenances belonging or in anywise appertaining to the aforementioned property or any part thereof, with the reversion and reversions, remainder and remainders and (subject to the provisions of Section 57 of the Mortgage) the tolls, rents, revenues, issues, earnings, income, product and profits thereof, and all the estate, right, title and interest and claim whatsoever, at law as well as in equity, which the Company now has or may hereafter acquire in and to the aforementioned property and franchises and every part and parcel thereof.

IT IS HEREBY AGREED by the Company that, subject to the provisions of subsection (I) of Section 87 of the Mortgage, all the property, rights, and franchises acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) after the date hereof, except any herein or in the Mortgage, as heretofore supplemented, expressly excepted, shall be and are as fully granted and conveyed hereby and by the Mortgage, and as fully embraced within the lien hereof and the lien of the Mortgage, as supplemented, as if such property, rights and franchises were now owned by the Company and were specifically described herein or in the Mortgage, as heretofore supplemented, and conveyed hereby or thereby.

Provided that the following are not and are not intended to be now or hereafter granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed hereunder and are hereby expressly excepted from the lien and operation of this Twelfth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, viz: (1) cash, shares of stock, bonds, notes and other obligations and other securities not hereafter specifically pledged, paid, deposited, delivered or held under the Mortgage, as heretofore supplemented, or covenanted so to be; (2) merchandise, equipment, apparatus, materials or supplies held for the purpose of sale or other disposition in the usual course of business; fuel, oil and similar materials and supplies consumable in the operation of any of the properties of the Company; all aircraft, tractors, rolling stock, trolley coaches, buses, motor coaches, automobiles, motor trucks, and other vehicles and materials and supplies held for the purpose of repairing or replacing (in whole or in part) any of the same; (3) bills, notes and accounts receivable, judgments, demands and

choses in action, and all contracts, leases and operating agreements not specifically pledged under the Mortgage, as heretofore supplemented, or covenanted so to be; (4) the last day of the term of any lease or leasehold which may be or become subject to the lien of the Mortgage; (5) gas, petroleum, carbon, chemicals, light oils, tar products, electric energy, steam, water, ice, and other materials or products, manufactured, stored, generated, produced, purchased or acquired by the Company for sale, distribution or use in the ordinary course of its business; all timber, minerals, mineral rights and royalties and all Natural Gas and Oil Production Property, as defined in Section 4 of the Mortgage; and (6) the Company's franchise to be a corporation; provided, however, that the property and rights expressly excepted from the lien and operation of this Twelfth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, in the above subdivisions (2) and (3) shall (to the extent permitted by law) cease to be so excepted in the event and as of the date that either or both of the Trustees or a receiver or trustee shall enter upon and take possession of the Mortgaged and Pledged Property in the manner provided in Article XIII of the Mortgage by reason of the occurrence of a Default as defined in Section 65 thereof.

TO HAVE AND TO HOLD all such properties, real, personal and mixed, granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed by the Company as aforesaid, or intended so to be, unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees, and their successors and assigns forever.

IN TRUST NEVERTHELESS, for the same purposes and upon the same terms, trusts and conditions and subject to and with the same provisos and covenants as are set forth in the Mortgage, as heretofore supplemented, this Twelfth Supplemental Indenture being supplemental thereto.

AND IT IS HEREBY COVENANTED by the Company that all the terms, conditions, provisos, covenants and provisions contained in the Mortgage, as heretofore supplemented, shall affect and apply to the property hereinbefore described and conveyed, and to the estates, rights, obligations and duties of the Company and the Trustees and the beneficiaries of the trust with respect to said property, and to the Trustees and their successors in the trust, in the same manner and with the same effect as if the said property had been owned by the Company at the time of the execution of the Mortgage, and

had been specifically and at length described in and conveyed to said Trustees by the Mortgage as a part of the property therein stated to be conveyed.

The Company further covenants and agrees to and with the Trustees and their successors in said trust under the Mortgage, as follows:

ARTICLE I.

Thirteenth Series of Bonds.

SECTION 1.01. There shall be a series of bonds designated "14 $\frac{3}{4}$ % Series due 1989" (herein sometimes referred to as the "Thirteenth Series"), each of which shall also bear the descriptive title First Mortgage Bond, and the form thereof, which shall be established by Resolution of the Board of Directors of the Company, shall contain suitable provisions with respect to the matters hereinafter in this Section specified. Bonds of the Thirteenth Series shall be limited to \$30,000,000 in aggregate principal amount at any one time Outstanding except as provided in Section 16 of the Mortgage and shall mature on July 1, 1989, and shall be issued as fully registered bonds in denominations of One Thousand Dollars and, at the option of the Company, in any multiple or multiples of One Thousand Dollars (the exercise of such option to be evidenced by the execution and delivery thereof). Bonds of the Thirteenth Series shall bear interest at the rate of 14 $\frac{3}{4}$ % per annum, the first interest payment to be made on January 1, 1982 for the period from the date of first authentication by the Corporate Trustee of Bonds of the Thirteenth Series to January 1, 1982, with subsequent interest payments to be made semi-annually on January 1 and July 1 of each year; and the principal of, premium, if any, and interest on each said bond shall be payable at the office or agency of the Company in the Borough of Manhattan, The City of New York, in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts. Bonds of the Thirteenth Series shall be dated as in Section 10 of the Mortgage provided.

Bonds of the Thirteenth Series shall not be redeemable prior to July 1, 1986. On and after July 1, 1986, bonds of the Thirteenth Series shall be redeemable either at the option of the Company or pursuant to the requirements of the Mortgage in whole at any time, or in part from time to time, prior to maturity, upon notice, as provided in Section 52 of the

Mortgage, mailed at least thirty (30) days prior to the date fixed for redemption, at the following redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

If redeemed on or after July 1, 1986 and on or before July 1, 1987.....
104.22%

If redeemed after July 1, 1987 and on or before July 1, 1988.....
102.11%

If redeemed after July 1, 1988..... 100.00%
; in each case together with accrued interest to the date fixed for redemption.

ARTICLE II.

Exchanges and Transfers of Bonds of the Thirteenth Series.

SECTION 2.01. At the option of the registered owner, any bonds of the Thirteenth Series, upon surrender thereof, for cancellation, at the office or agency of the Company in the Borough of Manhattan, The City of New York, shall (subject to the provisions of Section 12 of the Mortgage) be exchangeable for a like aggregate principal amount of bonds of the same series of other authorized denominations.

Transfers of bonds of the Thirteenth Series may be registered (subject to the provisions of Section 12 of the Mortgage) at the office or agency of the Company in the Borough of Manhattan, The City of New York or such other locations as the Company may designate from time to time.

Upon any registration of transfer or exchange of bonds of the Thirteenth Series, the Company may make a charge therefor sufficient to reimburse it for any tax or taxes required to be paid solely by virtue of such transfer by the Company, as provided in Section 12 of the Mortgage, but the Company hereby waives any right to make a charge in addition thereto for any registration or exchange or transfer of bonds of the Thirteenth Series.

ARTICLE III.

Miscellaneous Provisions.

SECTION 3.01. Subject to the amendments provided for in this Twelfth Supplemental Indenture, the terms defined in the Mortgage, as heretofore supplemented, shall, for all purposes of this Twelfth Supplemental In-

denture, have the meanings specified in the Mortgage, as heretofore supplemented.

SECTION 3.02. The Trustees hereby accept the trusts hereby declared, provided, created or supplemented, and agree to perform the same upon the terms and conditions herein and in the Mortgage, as heretofore supplemented, set forth, including the following:

The Trustees shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Twelfth Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made by the Company solely. In general each and every term and condition contained in Article XVII of the Mortgage shall apply to and form part of this Twelfth Supplemental Indenture with the same force and effect as if the same were herein set forth in full, with such omissions, variations and insertions, if any, as may be appropriate to make the same conform to the provisions of the Twelfth Supplemental Indenture.

SECTION 3.03. Whenever in this Twelfth Supplemental Indenture any of the parties hereto is named or referred to, this shall, subject to the provisions of Articles XVI and XVII of the Mortgage, be deemed to include the successors or assigns of such party, and all the covenants and agreements in this Twelfth Supplemental Indenture contained by or on behalf of the Company or by or on behalf of the Trustees shall bind and inure to the benefit of the respective successors and assigns of such parties whether so expressed or not.

SECTION 3.04. Nothing in this Twelfth Supplemental Indenture, expressed or implied, is intended, or shall be construed, to confer upon, or to give to, any person, firm or corporation, other than the parties hereto and the holders of the bonds and coupons outstanding under the Mortgage, any right, remedy, or claim under or by reason of this Twelfth Supplemental Indenture or any covenant, condition, stipulation, promise or agreement hereof, and all the covenants, conditions, stipulations, promises and agreements by or on behalf of the Company as set forth in this Twelfth Supplemental Indenture shall be for the sole and exclusive benefit of the parties hereto, and of the holders of the bonds and of the coupons outstanding under the Mortgage.

SECTION 3.05. This Twelfth Supplemental Indenture has been executed in several identical counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, Northwest Natural Gas Company, party hereto of the first part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by its President or one of its Vice Presidents, and its corporate seal to be attested by its Secretary or one of its Assistant Secretaries for and in its behalf on the 6th day of July 1981, as of July 1, 1981, in Portland, Oregon; Bankers Trust Company, one of the parties hereto of the second part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by one of its Vice Presidents or one of its Assistant Vice Presidents and its corporate seal to be attested by one of its Assistant Secretaries; and Stanley Burg, one of the parties hereto of the second part, has hereunto set his hand and affixed his seal, all in The City of New York, on the 3rd day of July 1981, as of July 1, 1981.

NORTHWEST NATURAL GAS
COMPANY

By *Donald M. Miller*
President

Attest:

W. Keppel
Secretary

Executed, sealed and delivered by NORTHWEST
NATURAL GAS COMPANY in the presence of:

Jinda R. Williams
C. J. Lee

BANKERS TRUST COMPANY,
as Trustee,

By Carl H. Tans
Assistant Vice President

Attest:

[Signature]
Assistant Secretary

STANLEY BURG, as Trustee

By BANKERS TRUST COMPANY
Attorney-in-fact

By [Signature]
Assistant Secretary

Executed, sealed and delivered by BANKERS TRUST
COMPANY for itself and on behalf of STANLEY BURG
in the presence of:

H. M. Deakue
P. A. Schuffman

STATE OF OREGON }
 COUNTY OF MULTNOMAH } ss.:

July 6, A.D. 1981.

Before me personally appeared RONALD T. MILLER, who, being duly sworn, did say that he is President of NORTHWEST NATURAL GAS COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 6th day of July, 1981, before me personally appeared RONALD T. MILLER, to me known to be President of NORTHWEST NATURAL GAS COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.



.....
 H. W. PIERCE
 Notary Public, State of Oregon
 My Commission Expires 11/24/81

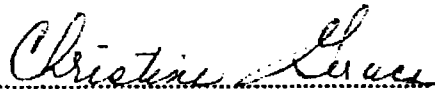
STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

July 3, A.D. 1981.

Before me personally appeared CARL H. NASIB, who, being duly sworn, did say that he is an Assistant Vice President of BANKERS TRUST COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 3rd day of July, 1981, before me personally appeared CARL H. NASIB, to me known to be an Assistant Vice President of BANKERS TRUST COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.



CHRISTINE GRACE
Notary Public, State of New York
No. 404077157
Qualified in Hamilton County
and Not to die in Hamilton County
Commencement Expires March 30, 1982

STATE OF NEW YORK }
COUNTY OF NEW YORK } ss.:

July 3, A.D. 1981.

Before me personally appeared S.D. MINEO , who, being duly sworn, did say that he is an Assistant Secretary of BANKERS TRUST COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 3rd day of July, 1981, before me personally appeared S.D. MINEO , to me known to be an Assistant Secretary of BANKERS TRUST COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

Christine Lucas

CHRISTINE LUCAS
Notary Public in and for New York
No. 42-1457147
Qualified in Richmond County
Certificate filed in New York County
Commission Expires March 30, 1983

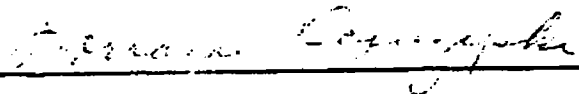
KNOW ALL MEN BY THESE PRESENTS, that I, the undersigned, STANLEY BURG, as Co-Trustee, do hereby make, constitute and appoint Bankers Trust Company my true and lawful attorney-in-fact with full power and authority to execute, deliver and acknowledge on my behalf, as Co-Trustee, the Twelfth Supplemental Indenture of Northwest Natural Gas Company and any acknowledgments, oaths, representations or certificates attached thereto or in connection therewith and to do and perform all and every act and thing whatsoever requisite, necessary or desirable and proper to be done, as fully and to all intents and purposes as I might or could do if personally present, in connection with said execution, delivery or acknowledgment of such Indenture, acknowledgments, oaths, representations or certificates, hereby ratifying and confirming all that my said attorney-in-fact shall lawfully do or cause to be done by virtue hereof.

IN WITNESS WHEREOF, I have hereunto set my hand on this 2nd day of July, 1981.


STANLEY BURG as Co-Trustee

STATE OF NEW YORK)
COUNTY OF NEW YORK) ss:

On this 2nd day of July, 1981, before me, a Notary Public within and for said County, personally appeared STANLEY BURG, to me known to be the person described in and who executed the foregoing power of attorney and acknowledged that he executed the same as his free act and deed.



LORRAINE KAPUZYSKI
Notary Public, State of New York
No. 43-4030783
Qualified in Richmond County
Commission filed in New York County
Commission expires March 30, 1982

[Conformed Copy]

NORTHWEST NATURAL GAS COMPANY

TO

BANKERS TRUST COMPANY

AND

STANLEY BURG (SUCCESSOR TO R. G. PAGE AND J. C. KENNEDY),

As Trustees under the Mortgage and
Deed of Trust, dated as of July 1,
1946, of Portland Gas & Coke Company
(now Northwest Natural Gas Company)

THIRTEENTH SUPPLEMENTAL INDENTURE

providing among other things for

First Mortgage Bonds, 10 1/8% Series due 1995

Dated as of June 1, 1985

THIRTEENTH SUPPLEMENTAL INDENTURE

INDENTURE, dated as of the first day of June, 1985, made and entered into by and between NORTHWEST NATURAL GAS COMPANY (formerly Portland Gas & Coke Company), a corporation of the State of Oregon, whose post office address is One Pacific Square, 220 N.W. Second Avenue, Portland, Oregon 97209 (hereinafter sometimes called the Company), party of the first part, and BANKERS TRUST COMPANY, a corporation of the State of New York, whose post office address is Four Albany Street, New York, New York 10015 (hereinafter sometimes called the Corporate Trustee) and STANLEY BURG (successor to R. G. PAGE and J. C. KENNEDY), whose post office address is 23 Dover Green, Staten Island, New York 10312 (hereinafter sometimes called the Co-Trustee), parties of the second part (the Corporate Trustee and the Co-Trustee being hereinafter together sometimes called the Trustees), as Trustees under the Mortgage and Deed of Trust, dated as of July 1, 1946 (hereinafter called the Mortgage), executed and delivered by Portland Gas & Coke Company (now Northwest Natural Gas Company) to secure the payment of bonds issued or to be issued under and in accordance with the provisions of the Mortgage, this indenture (hereinafter called Thirteenth Supplemental Indenture) being supplemental thereto;

WHEREAS the Mortgage was or is to be recorded in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Thirteenth Supplemental Indenture is to be recorded; and

WHEREAS by the Mortgage the Company covenanted that it would execute and deliver such supplemental indenture or indentures and such further instruments and do such further acts as might be necessary or proper to carry out more effectually the purposes of the Mortgage and to make subject to the lien of the Mortgage any property thereafter acquired, made or constructed and intended to be subject to the lien thereof; and

WHEREAS the Company executed and delivered to the Trustees its First Supplemental Indenture, dated as of June 1, 1949 (hereinafter called its First Supplemental Indenture), its Second Supplemental Indenture, dated as of March 1, 1954 (hereinafter called its Second Supplemental Indenture), its Third Supplemental Indenture, dated as of April 1, 1956 (hereinafter called its Third Supplemental Indenture), its Fourth Supplemental Indenture, dated as of February 1, 1959 (hereinafter called its Fourth Supple-

mental Indenture), its Fifth Supplemental Indenture, dated as of July 1, 1961 (hereinafter called its Fifth Supplemental Indenture), its Sixth Supplemental Indenture, dated as of January 1, 1964 (hereinafter called its Sixth Supplemental Indenture), its Seventh Supplemental Indenture, dated as of March 1, 1966 (hereinafter called its Seventh Supplemental Indenture), its Eighth Supplemental Indenture, dated as of December 1, 1969 (hereinafter called its Eighth Supplemental Indenture), its Ninth Supplemental Indenture, dated as of April 1, 1971 (hereinafter called its Ninth Supplemental Indenture), its Tenth Supplemental Indenture, dated as of January 1, 1975 (hereinafter called its Tenth Supplemental Indenture), its Eleventh Supplemental Indenture, dated as of December 1, 1975 (hereinafter called its Eleventh Supplemental Indenture); and

WHEREAS said First through Eleventh Supplemental Indentures were filed for record, and were recorded and indexed, as a mortgage of both real and personal property, in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Thirteenth Supplemental Indenture is to be recorded; and

WHEREAS the Company executed and delivered to the Trustees its Twelfth Supplemental Indenture, dated as of July 1, 1981 (hereinafter called its Twelfth Supplemental Indenture); and

WHEREAS said Twelfth Supplemental Indenture was filed for record, and was recorded and indexed, as a mortgage of both real and personal property, and financing statements were filed, in the official records of the several counties and other offices in the States of Oregon and Washington listed below, as follows:

Oregon
Real Property Mortgage Records

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Benton	July 7, 1981	M-30015-81	--
Clackamas	July 6, 1981	81 23737	--
Clatsop	July 7, 1981	556	477
Columbia	July 7, 1981	170	663
Coos	July 7, 1981	81 3 1370	--
Douglas	July 7, 1981	793	409
Hood River	July 7, 1981	811211	--
Lane	July 7, 1981	8129229	--
Lincoln	July 7, 1981	125	1053
Linn	July 7, 1981	292	461
Marion	July 6, 1981	254	1835
Multnomah	July 6, 1981	1535	1455
Polk	July 6, 1981	158	1137
Tillamook	July 7, 1981	276	963
Wasco	July 7, 1981	811 735	--
Washington	July 7, 1981	81023623	--
Yamhill	July 7, 1981	162	0861

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
Secretary of State	July 6, 1981	G 49291

Washington
Real Property Mortgage Records

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Clark	July 7, 1981	81-07070027	--
Klickitat	July 7, 1981	126	511
Skamania	July 7, 1981	57	957

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
Secretary of State	July 6, 1981	81188012

; and

WHEREAS an instrument dated as of June 14, 1951, was executed by the Company appointing J. C. KENNEDY as Co-Trustee in succession to said R. G. PAGE (resigned) under the Mortgage and by J. C. KENNEDY accepting the appointment as Co-Trustee under the Mortgage in succession to the said R. G. PAGE, which instrument was recorded in various counties in the States of Oregon and Washington; and

WHEREAS, in the Ninth Supplemental Indenture STANLEY BURG was appointed by the Company as Co-Trustee under the Mortgage in succession to said J. C. KENNEDY (resigned) and in the Ninth Supplemental Indenture STANLEY BURG accepted such appointment as Co-Trustee under the Mortgage in succession to said J. C. KENNEDY; and

WHEREAS in addition to the property described in the Mortgage, as heretofore supplemented, the Company has acquired certain other property, rights and interests in property; and

WHEREAS, the Company has heretofore issued, in accordance with the provisions of the Mortgage, as supplemented, the following series of First Mortgage Bonds:

<u>Series</u>	<u>Principal Amount Outstanding</u>
3-1/8% Series due 1976.....	None
3-7/8% Series due 1974.....	None
4 % Series due 1974.....	None
4-3/8% Series due 1976.....	None
5-1/8% Series due 1984.....	None
5-1/8% Series due 1986.....	\$ 3,898,000
4-3/4% Series due 1989.....	\$ 4,255,000
5-3/4% Series due 1991.....	\$10,330,000
9-3/8% Series due 1974.....	None
8-5/8% Series due 1996.....	\$13,697,000
12 % Series due 1984.....	None
10-1/2% Series due 1986.....	\$20,000,000
14-3/4% Series due 1989.....	\$30,000,000

; and

WHEREAS Section 8 of the Mortgage provides that the form of each series of bonds (other than the First Series) issued thereunder shall be established by Resolution of the Board of Directors of the Company; that the form of such series, as established by said Board of Di-

rectors, shall specify the descriptive title of the bonds and various other terms thereof; and that such Series may also contain such provisions not inconsistent with the provisions of the Mortgage as the Board of Directors may, in its discretion, cause to be inserted therein expressing or referring to the terms and conditions upon which such bonds are to be issued and/or secured under the Mortgage; and

WHEREAS Section 120 of the Mortgage provides, among other things, that any power, privilege or right expressly or impliedly reserved to or in any way conferred upon the Company by any provision of the Mortgage, whether such power, privilege or right is in any way restricted or is unrestricted, may (to the extent permitted by law) be in whole or in part waived or surrendered or subjected to any restriction if at the time unrestricted or to additional restriction if already restricted, and the Company may enter into any further covenants, limitations or restrictions for the benefit of any one or more series of bonds issued thereunder, or the Company may cure any ambiguity contained therein or in any supplemental indenture or may (in lieu of establishment by Resolution as provided in Section 8 of the Mortgage) establish the terms and provisions of any series of bonds other than said First Series, by an instrument in writing executed and acknowledged by the Company in such manner as would be necessary to entitle a conveyance of real estate to record in all of the states in which any property at the time subject to the lien of the Mortgage shall be situated; and

WHEREAS the Company now desires to create a new series of bonds and (pursuant to the provisions of Section 120 of the Mortgage) to add to its covenants and agreements contained in the Mortgage, as heretofore supplemented, certain other covenants and agreements to be observed by it and to alter and amend in certain respects the covenants and provisions contained in the Mortgage, as heretofore supplemented and amended; and

WHEREAS the execution and delivery by the Company of this Thirteenth Supplemental Indenture, and the terms of the bonds of the Fourteenth Series hereinafter referred to, have been duly authorized by the Board of Directors of the Company by appropriate resolutions of said Board of Directors;

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

That Northwest Natural Gas Company, in consideration of the premises and of One Dollar to it duly paid

by the Trustees at or before the ensembling and delivery of these presents, the receipt whereof is hereby acknowledged, and in further assurance of the estate, title and rights of the Trustees, and in order further to secure the payment both of the principal of and interest and premium, if any, on the bonds from time to time issued under the Mortgage, according to their tenor and effect, and the performance of all the provisions of the Mortgage (including any instruments supplemental thereto and any modification made as in the Mortgage provided) and of said bonds, hereby grants, bargains, sells, releases, conveys, assigns, transfers, mortgages, pledges, sets over and confirms (subject, however, to Excepted Encumbrances, as defined in Section 6 of the Mortgage) unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees under the Mortgage, and to their successor or successors in said trust, and to said Trustees and their successors and assigns forever, all property, real, personal and mixed, acquired by the Company after the date of the Mortgage, of the kind or nature specifically mentioned in Article XXI of the Mortgage or of any other kind or nature (except any herein or in the Mortgage expressly excepted) now owned or, subject to the provisions of subsection (I) of Section 87 of the Mortgage, hereafter acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) and wheresoever situated, including (without in anywise limiting or impairing by the enumeration of the same the scope and intent of the foregoing) all lands, gas plants, by-product plants, gas holders, gas mains and pipes; all power sites, water rights, reservoirs, canals, raceways, dams, aqueducts, and all other rights or means for appropriating, conveying, storing and supplying water; all rights of way and roads; all plants for the generation of electricity by steam, water and/or other power; all power houses, street lighting systems, standards and other equipment incidental thereto, telephone, radio, television and air-conditioning systems and equipment incidental thereto, water works, water systems, steam heat and hot water plants, substations, lines, service and supply systems, bridges, culverts, tracts, ice or refrigeration plants and equipment, offices, buildings and other structures and the equipment thereof; all machinery, engines, boilers, dynamos, gas, electric and other machines, regulators, meters, transformers, generators, motors, gas, electrical and mechanical appliances, conduits, cables, gas, water, steam heat or other pipes, service pipes, fittings, valves and connections, pole and transmission lines, wires, cables, tools, implements, apparatus, furniture and chattels; all franchises, consents or permits; all lines for the trans-

mission and distribution of gas, electric current, steam heat or water for any purpose including mains, pipes, conduits, towers, poles, wires, cables, ducts and all apparatus for use in connection therewith; all real estate, lands, easements, servitudes, licenses, permits, franchises, privileges, rights of way and other rights in or relating to public or private property, real or personal, or the occupancy of such property and (except as herein or in the Mortgage, as heretofore supplemented, expressly excepted) all right, title and interest the Company may now have or may hereafter acquire in and to any and all property of any kind or nature wheresoever situated.

TOGETHER WITH all and singular the tenements, hereditaments, prescriptions, servitudes and appurtenances belonging or in anywise appertaining to the aforementioned property or any part thereof, with the reversion and reversions, remainder and remainders and (subject to the provisions of Section 57 of the Mortgage) the tolls, rents, revenues, issues, earnings, income, product and profits thereof, and all the estate, right, title and interest and claim whatsoever, at law as well as in equity, which the Company now has or may hereafter acquire in and to the aforementioned property and franchises and every part and parcel thereof.

IT IS HEREBY AGREED by the Company that, subject to the provisions of subsection (I) of Section 87 of the Mortgage, all the property, rights, and franchises acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) after the date hereof, except any herein or in the Mortgage, as heretofore supplemented, expressly excepted, shall be and are as fully granted and conveyed hereby and by the Mortgage, and as fully embraced within the lien hereof and the lien of the Mortgage, as supplemented, as if such property, rights and franchises were now owned by the Company and were specifically described herein or in the Mortgage, as heretofore supplemented, and conveyed hereby or thereby. Provided that the following are not and are not intended to be now or hereafter granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed hereunder and are hereby expressly excepted from the lien and operation of this Thirteenth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, viz: (1) cash, shares of stock, bonds, notes and other obligations and other securities not hereafter specifically pledged, paid, deposited, delivered or held under the Mortgage, as heretofore supplemented, or covenanted so to be; (2) merchandise, equipment, apparatus,

materials or supplies held for the purpose of sale or other disposition in the usual course of business; fuel, oil and similar materials and supplies consumable in the operation of any of the properties of the Company; all aircraft, tractors, rolling stock, trolley coaches, buses, motor coaches, automobiles, motor trucks, and other vehicles and materials and supplies held for the purpose of repairing or replacing (in whole or in part) any of the same; (3) bills, notes and accounts receivable, judgments, demands and choses in action, and all contracts, leases and operating agreements not specifically pledged under the Mortgage, as heretofore supplemented, or covenanted so to be; (4) the last day of the term of any lease or leasehold which may be or become subject to the lien of the Mortgage; (5) gas, petroleum, carbon, chemicals, light oils, tar products, electric energy, steam, water, ice, and other materials or products, manufactured, stored, generated, produced, purchased or acquired by the Company for sale, distribution or use in the ordinary course of its business; all timber, minerals, mineral rights and royalties and all Natural Gas and Oil Production Property, as defined in Section 4 of the Mortgage; and (6) the Company's franchise to be a corporation; provided, however, that the property and rights expressly excepted from the lien and operation of this Thirteenth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, in the above subdivisions (2) and (3) shall (to the extent permitted by law) cease to be so excepted in the event and as of the date that either or both of the Trustees or a receiver or trustee shall enter upon and take possession of the Mortgaged and Pledged Property in the manner provided in Article XIII of the Mortgage by reason of the occurrence of a Default as defined in Section 65 thereof.

TO HAVE AND TO HOLD all such properties, real, personal and mixed, granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed by the Company as aforesaid, or intended so to be, unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees, and their successors and assigns forever.

IN TRUST NEVERTHELESS, for the same purposes and upon the same terms, trusts and conditions and subject to and with the same provisos and covenants as are set forth in the Mortgage, as heretofore supplemented, this Thirteenth Supplemental Indenture being supplemental thereto.

AND IT IS HEREBY COVENANTED by the Company that all the terms, conditions, provisos, covenants and provisions contained in the Mortgage, as heretofore supplemented, shall affect and apply to the property hereinbefore described and conveyed, and to the estates, rights, obligations and duties of the Company and the Trustees and the beneficiaries of the trust with respect to said property, and to the Trustees and their successors in the trust, in the same manner and with the same effect as if the said property had been owned by the Company at the time of the execution of the Mortgage, and had been specifically and at length described in and conveyed to said Trustees by the Mortgage as a part of the property therein stated to be conveyed.

The Company further covenants and agrees to and with the Trustees and their successors in said trust under the Mortgage, as follows:

ARTICLE I.

Fourteenth Series of Bonds.

SECTION 1.01. There shall be a series of bonds designated "10 1/8% Series due 1995" (herein sometimes referred to as the "Fourteenth Series"), each of which shall also bear the descriptive title First Mortgage Bond, and the form thereof, which shall be established by Resolution of the Board of Directors of the Company, shall contain suitable provisions with respect to the matters hereinafter in this Section specified. Bonds of the Fourteenth Series shall be limited to \$15,000,000 in aggregate principal amount at any one time Outstanding except as provided in Section 16 of the Mortgage and shall mature on June 1, 1995, and shall be issued as fully registered bonds in denominations of One Thousand Dollars and, at the option of the Company, in any multiple or multiples of One Thousand Dollars (the exercise of such option to be evidenced by the execution and delivery thereof). Bonds of the Fourteenth Series shall bear interest at the rate of 10 1/8% per annum, payable semi-annually on December 1 and June 1 of each year; and the principal of, premium, if any, and interest on each said bond shall be payable at the office or agency of the Company in the Borough of Manhattan, The City of New York, in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts. Bonds of the

Fourteenth Series shall be dated as in Section 10 of the Mortgage provided.

Bonds of the Fourteenth Series shall be redeemable either at the option of the Company or pursuant to the requirements of the Mortgage in whole at any time, or in part from time to time, prior to maturity, upon notice, as provided in Section 52 of the Mortgage, mailed at least thirty (30) days prior to the date fixed for redemption, at the following general redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

GENERAL REDEMPTION PRICES

If redeemed during the 12 months period ending May 31,

1986.....	109.50%	1991.....	104.23%
1987.....	108.45%	1992.....	103.17%
1988.....	107.39%	1993.....	102.12%
1989.....	106.34%	1994.....	101.06%
1990.....	105.28%	1995.....	100.00%

in each case, together with accrued interest to the date fixed for redemption; provided, however, that no bonds of the Fourteenth Series may be redeemed at said general redemption prices prior to June 1, 1990, as part of any refunding operation involving, directly or indirectly, the incurring of indebtedness by the Company having a cost (calculated in accordance with acceptable financial practice) lower than 10.289% per annum.

Bonds of the Fourteenth Series shall also be redeemable in whole at any time, or in part from time to time, prior to maturity, upon like notice, by the application (either at the option of the Company or pursuant to the requirements of the Mortgage) of cash deposited with the Corporate Trustee pursuant to the provisions of Section 64 of the Mortgage (so long as any bonds of the Sixth, Seventh, Eighth or Tenth Series remain Outstanding) or with the Proceeds of Released Property, at the following special redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

SPECIAL REDEMPTION PRICES

If redeemed during the 12 months period ending May 31,

1986.....	100.00%	1991.....	100.00%
1987.....	100.00%	1992.....	100.00%
1988.....	100.00%	1993.....	100.00%
1989.....	100.00%	1994.....	100.00%
1990.....	100.00%	1995.....	100.00%

in each case, together with accrued interest to the date fixed for redemption.

ARTICLE II.

Exchanges and Transfers of Bonds of the Fourteenth Series.

SECTION 2.01. At the option of the registered owner, any bonds of the Fourteenth Series, upon surrender thereof, for cancellation, at the office or agency of the Company in the Borough of Manhattan, The City of New York, shall (subject to the provisions of Section 12 of the Mortgage) be exchangeable for a like aggregate principal amount of bonds of the same series of other authorized denominations.

Transfers of bonds of the Fourteenth Series may be registered (subject to the provisions of Section 12 of the Mortgage) at the office or agency of the Company in the Borough of Manhattan, The City of New York or such other locations as the Company may designate from time to time.

Upon any registration of transfer or exchange of bonds of the Fourteenth Series, the Company may make a charge therefor sufficient to reimburse it for any tax or taxes required to be paid solely by virtue of such transfer by the Company, as provided in Section 12 of the Mortgage, but the Company hereby waives any right to make a charge in addition thereto for any registration or exchange or transfer of bonds of the Fourteenth Series.

ARTICLE III.

Miscellaneous Provisions.

SECTION 3.01. Subject to the amendments provided for in this Thirteenth Supplemental Indenture, the terms defined in the Mortgage, as heretofore supplemented, shall, for all purposes of this Thirteenth Supplemental Indenture, have the meanings specified in the Mortgage, as heretofore supplemented.

SECTION 3.02. The third paragraph of Section 106 of the Mortgage is amended to read in its entirety as follows, such amendment to take effect immediately for the Fourteenth Series of bonds and all future series of bonds to be issued under the Mortgage:

"Bonds and interest obligations for the payment of which and bonds for the redemption of which either (i) moneys in the necessary amount or (ii) (a) direct obligations of the government of the United States of America or (b) obligations guaranteed by the government of the United States of America or (c) securities that are backed by obligations of the government of the United States of America as collateral under an arrangement by which the interest and principal payments on the collateral generally flow immediately through to the holder of the security, which in any case are not subject to redemption prior to maturity by anyone other than the holders the principal of and the interest on which when due, and without any regard to reinvestment thereof, in the opinion of an independent accountant, and, in the opinion of the officers of the Company executing an Officers' Certificate to that effect, will provide moneys which, together with the moneys, if any, deposited with or held by the Corporate Trustee, shall be sufficient to pay when due the principal of, premium, if any, and interest due and to become due on said bonds or portions thereof on the redemption date or maturity date thereof, as the case may be, shall have been set apart by or deposited with the Corporate Trustee, with irrevocable direction so to apply the same, subject to the provisions of Section 119 hereof (with or without any additional right given to the holders to surrender their bonds or obtain therefrom payment therefor prior to the redemption date) shall for purposes of satisfying the Lien of this Indenture be deemed to have been paid and for any other purpose under this Indenture be deemed not to be Outstanding; provided that in case of redemption the notice requisite to the validity of such redemption shall have been given or arrangements shall have been made in-

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suring to the satisfaction of the Corporate Trustee that the same will be given."

SECTION 3.03. When all bonds of the Sixth through Thirteenth Series are no longer Outstanding, the first paragraph of Section 99 of the Mortgage is amended to read as follows:

"Section 99. (a) If any Trustee has or acquires any conflicting interest, as defined by subdivision (d) of this Section, such Trustee shall within ninety (90) days after ascertaining that it has such conflicting interest, either eliminate such conflicting interest or resign by giving written notice to the Company, but such resignation shall not become effective until the appointment of a successor trustee and such successor's acceptance of such appointment. The Company covenants to take prompt steps to have a successor appointed in the manner hereinafter provided in Section 102 hereof. Upon giving such notice of resignation, the resigning Trustee shall publish notice thereof, once in one newspaper printed in the English language and of general circulation in the Borough of Manhattan, The City of New York, on any business day of the week. If the resigning Trustee fails to publish such notice within ten (10) days after giving written notice of resignation to the Company, the Company shall publish such notice."

SECTION 3.04. When all bonds of the Sixth through Thirteenth Series are no longer Outstanding, the first paragraph of Section 101 of the Mortgage is amended to read as follows:

"Section 101. Any Trustee may at any time resign and be discharged of the trusts hereby created by giving written notice to the Company specifying the day upon which such resignation shall take effect and thereafter publishing notice thereof, once in one newspaper printed in the English language and of general circulation in the Borough of Manhattan, The City of New York, on any business day of the week, and such resignation shall take effect upon the day specified in such notice unless previously a successor trustee shall have been appointed by the bondholders or the Company in the manner hereinafter provided in Section 102 and in such event such resignation shall take effect immediately on the appointment of such successor trustee. This Section shall not be

applicable to resignations pursuant to Section 99 hereof."

Section 3.05. All bonds of the First through Third Series being no longer Outstanding, Section 5 of the Mortgage is amended to add the following proviso at the end of clause (4) thereof:

"provided, however, that when no bonds of the First, Second or Third Series remain Outstanding, Property Additions of a Cost not in excess of \$1,100,000 so substituted at any time under subdivision (B) of subsection (II) of Section 4 hereof for Funded Property used primarily and principally in the handling and processing of carbon owned at April 1, 1956 and retired subsequent to April 1, 1956 shall cease to be or to be deemed to have been Funded Property;"

SECTION 3.06. The Trustees hereby accept the trusts hereby declared, provided, created or supplemented, and agree to perform the same upon the terms and conditions herein and in the Mortgage, as heretofore supplemented, set forth, including the following:

The Trustees shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Thirteenth Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made by the Company solely. In general each and every term and condition contained in Article XVII of the Mortgage shall apply to and form part of this Thirteenth Supplemental Indenture with the same force and effect as if the same were herein set forth in full, with such omissions, variations and insertions, if any, as may be appropriate to make the same conform to the provisions of the Thirteenth Supplemental Indenture.

SECTION 3.07. Whenever in this Thirteenth Supplemental Indenture any of the parties hereto is named or referred to, this shall, subject to the provisions of Articles XVI and XVII of the Mortgage, be deemed to include the successors or assigns of such party, and all the covenants and agreements in this Thirteenth Supplemental Indenture contained by or on behalf of the Company or by or on behalf of the Trustees shall bind and inure to the benefit of the respective successors and assigns of such parties whether so expressed or not.

SECTION 3.08. Nothing in this Thirteenth Supplemental Indenture, expressed or implied, is intended, or

shall be construed, to confer upon, or to give to, any person, firm or corporation, other than the parties hereto and the holders of the bonds and coupons outstanding under the Mortgage, any right, remedy, or claim under or by reason of this Thirteenth Supplemental Indenture or any covenant, condition, stipulation, promise or agreement hereof, and all the covenants, conditions, stipulations, promises and agreements by or on behalf of the Company as set forth in this Thirteenth Supplemental Indenture shall be for the sole and exclusive benefit of the parties hereto, and of the holders of the bonds and of the coupons outstanding under the Mortgage.

SECTION 3.09. This Thirteenth Supplemental Indenture has been executed in several identical counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, Northwest Natural Gas Company, party hereto of the first part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by its President or one of its Vice Presidents, and its corporate seal to be attested by its Secretary or one of its Assistant Secretaries for and in its behalf on the 7th day of June 1985, as of June 1, 1985 in Portland, Oregon; Bankers Trust Company, one of the parties hereto of the second part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by one of its Vice Presidents or one of its Assistant Vice Presidents and its corporate seal to be attested by one of its Assistant Secretaries; and Stanley Burg, one of the parties hereto of the second

part, has hereunto set his hand and affixed his seal, all in The City of New York, on the 11th day of June, 1985, as of June 1, 1985.

NORTHWEST NATURAL GAS COMPANY

[Corporate Seal]

By Robert L. Ridgley
President

Attest:

C. J. Rue
Secretary

Executed, sealed and delivered
by NORTHWEST NATURAL GAS COM-
PANY in the presence of:

W. E. Radford

Leslie K. Aldrin

BANKERS TRUST COMPANY, as Trustee,

[Corporate Seal]

By T. J. Moskie
Vice President

Attest:

Robert Cascone
Assistant Secretary

Stanley Burg
STANLEY BURG, as Trustee

Executed, sealed and delivered
by BANKERS TRUST COMPANY and
STANLEY BURG in the presence
of:

Marie A. Colas

Alfred C. Vinton

STATE OF OREGON)
 : ss.:
COUNTY OF MULTNOMAH)

June 7, A.D. 1985.

Before me personally appeared ROBERT L. RIDGLEY, who, being duly sworn, did say that he is President of NORTHWEST NATURAL GAS COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 7th day of June, before me personally appeared ROBERT L. RIDGLEY, to me known to be President of NORTHWEST NATURAL GAS COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

 R. L. Hordichok

R. L. HORDICHOK

Notary Public, State of Oregon

My Commission Expires 10/9/88

[Notarial Seal]

STATE OF NEW YORK)
 : ss.:
COUNTY OF NEW YORK)

June 11, A.D. 1985.

Before me personally appeared T. J. MOSKIE, who, being duly sworn, did say that he is a Vice President of BANKERS TRUST COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 11th day of June, 1985, before me personally appeared T. J. MOSKIE, to me known to be a Vice President of BANKERS TRUST COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

Helmut F. Leuffen
HELMUT F. LEUFFEN
Notary Public, State of New York
No. 31-4657770
Qualified in New York County
Commission Expires March 30, 1987

[Notarial Seal]

STATE OF NEW YORK)
 : ss.:
COUNTY OF NEW YORK)

June 11th, A.D. 1985.

Before me personally appeared the above-named STANLEY BURG and acknowledged the foregoing instrument to be his voluntary act and deed.

On this day personally appeared before me STANLEY BURG to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 11th day of June, 1985.

Helmut F. Leuffen
HELMUT F. LEUFFEN
Notary Public, State of New York
No. 31-4657770
Qualified in New York County
Commission Expires March 30, 1987

[Notarial Seal]

SUMMARY OF RECORDING DATA

In the State of Oregon

Real Property Mortgage Records

<u>Counterpart No.</u>	<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
10	Benton	June 19, 1985	M-68069-85	-
11	Clackamas	June 19, 1985	85 21105	-
12	Clatsop	June 19, 1985	638	554
13	Columbia	June 19, 1985	191	127
14	Coos	June 19, 1985	85 3 0443	-
15	Douglas	June 19, 1985	917	169
16	Hood River	June 19, 1985	851100	-
17	Lane	June 19, 1985	8521471	-
18	Lincoln	June 19, 1985	161	2312
19	Linn	June 19, 1985	387	224
20	Marion	June 19, 1985	398	117
21	Multnomah	June 19, 1985	1831	1136
22	Polk	June 19, 1985	187	1346
23	Tillamook	June 19, 1985	299	176
24	Wasco	June 19, 1985	851312	-
25	Washington	June 19, 1985	85022638	-
26	Yamhill	June 19, 1985	195	747

Filed as a Financing Statement

<u>Counterpart No.</u>	<u>Office</u>	<u>Date Filed for Record</u>	<u>File No.</u>
8	Secretary of State	June 19, 1985	J 94033

In the State of Washington

Real Property Mortgage Records

<u>Counterpart No.</u>	<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
28	Clark	June 19, 1985	85-06190126	-
29	Klickitat	June 19, 1985	135	474
30	Skamania	June 19, 1985	61	583

Filed as a Financing Statement

<u>Counterpart No.</u>	<u>Office</u>	<u>Date Filed for Record</u>	<u>File No.</u>
27	Secretary of State	June 19, 1985	85-171-0052

[Conformed Copy]

NORTHWEST NATURAL GAS COMPANY

TO

BANKERS TRUST COMPANY

AND

STANLEY BURG (SUCCESSOR TO R. G. PAGE AND J. C. KENNEDY),

As Trustees under the Mortgage and
Deed of Trust, dated as of July 1,
1946, of Portland Gas & Coke Company
(now Northwest Natural Gas Company)

FOURTEENTH SUPPLEMENTAL INDENTURE

providing among other things for

First Mortgage Bonds, 10.35% Series due November 1, 1997

Dated as of November 1, 1985

FOURTEENTH SUPPLEMENTAL INDENTURE

INDENTURE, dated as of the first day of November, 1985, made and entered into by and between NORTHWEST NATURAL GAS COMPANY (formerly Portland Gas & Coke Company), a corporation of the State of Oregon, whose post office address is One Pacific Square, 220 N.W. Second Avenue, Portland, Oregon 97209 (hereinafter sometimes called the Company), party of the first part, and BANKERS TRUST COMPANY, a corporation of the State of New York, whose post office address is One Bankers Trust Plaza, New York, New York 10005 (hereinafter sometimes called the Corporate Trustee) and STANLEY BURG (successor to R. G. PAGE and J. C. KENNEDY), whose post office address is 23 Dover Green, Staten Island, New York 10312 (hereinafter sometimes called the Co-Trustee), parties of the second part (the Corporate Trustee and the Co-Trustee being hereinafter together sometimes called the Trustees), as Trustees under the Mortgage and Deed of Trust, dated as of July 1, 1946 (hereinafter called the Mortgage), executed and delivered by Portland Gas & Coke Company (now Northwest Natural Gas Company) to secure the payment of bonds issued or to be issued under and in accordance with the provisions of the Mortgage, this indenture (hereinafter called Fourteenth Supplemental Indenture) being supplemental thereto;

WHEREAS the Mortgage was or is to be recorded in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Fourteenth Supplemental Indenture is to be recorded; and

WHEREAS by the Mortgage the Company covenanted that it would execute and deliver such supplemental indenture or indentures and such further instruments and do such further acts as might be necessary or proper to carry out more effectually the purposes of the Mortgage and to make subject to the lien of the Mortgage any property thereafter acquired, made or constructed and intended to be subject to the lien thereof; and

WHEREAS the Company executed and delivered to the Trustees its First Supplemental Indenture, dated as of June 1, 1949 (hereinafter called its First Supplemental Indenture), its Second Supplemental Indenture, dated as of March 1, 1954 (hereinafter called its Second Supplemental Indenture), its Third Supplemental Indenture, dated as of April 1, 1956 (hereinafter called its Third Supplemental Indenture), its Fourth Supplemental Indenture, dated as of

February 1, 1959 (hereinafter called its Fourth Supplemental Indenture), its Fifth Supplemental Indenture, dated as of July 1, 1961 (hereinafter called its Fifth Supplemental Indenture), its Sixth Supplemental Indenture, dated as of January 1, 1964 (hereinafter called its Sixth Supplemental Indenture), its Seventh Supplemental Indenture, dated as of March 1, 1966 (hereinafter called its Seventh Supplemental Indenture), its Eighth Supplemental Indenture, dated as of December 1, 1969 (hereinafter called its Eighth Supplemental Indenture), its Ninth Supplemental Indenture, dated as of April 1, 1971 (hereinafter called its Ninth Supplemental Indenture), its Tenth Supplemental Indenture, dated as of January 1, 1975 (hereinafter called its Tenth Supplemental Indenture), its Eleventh Supplemental Indenture, dated as of December 1, 1975 (hereinafter called its Eleventh Supplemental Indenture) and its Twelfth Supplemental Indenture, dated as of July 1, 1981 (hereinafter called its Twelfth Supplemental Indenture); and

WHEREAS said First through Twelfth Supplemental Indentures were filed for record, and were recorded and indexed, as a mortgage of both real and personal property, in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Fourteenth Supplemental Indenture is to be recorded; and

WHEREAS the Company executed and delivered to the Trustees its Thirteenth Supplemental Indenture, dated as of June 1, 1985 (hereinafter called its Thirteenth Supplemental Indenture); and

WHEREAS said Thirteenth Supplemental Indenture was filed for record, and was recorded and indexed, as a mortgage of both real and personal property, and financing statements were filed, in the official records of the several counties and other offices in the States of Oregon and Washington listed below, as follows:

Oregon
Real Property Mortgage Records

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Benton	June 19, 1985	M-68069-85	-
Clackamas	June 19, 1985	85-21105	-
Clatsop	June 19, 1985	638	554
Columbia	June 19, 1985	191	127
Coos	June 19, 1985	85 3 0443	-
Douglas	June 19, 1985	917	169
Hood River	June 19, 1985	851100	-
Lane	June 19, 1985	8521471	-
Lincoln	June 19, 1985	161	2312
Linn	June 19, 1985	387	224
Marion	June 19, 1985	398	117
Multnomah	June 19, 1985	1831	1136
Polk	June 19, 1985	187	1346
Tillamook	June 19, 1985	299	176
Wasco	June 19, 1985	851312	-
Washington	June 19, 1985	85022638	-
Yamhill	June 19, 1985	195	747

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
Secretary of State	June 19, 1985	J 94033

Washington
Real Property Mortgage Records

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Clark	June 19, 1985	85-06190126	-
Klickitat	June 19, 1985	135	474
Skamania	June 19, 1985	61	583

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
Secretary of State ; and	June 19, 1985	85-171-0052

WHEREAS an instrument dated as of June 14, 1951, was executed by the Company appointing J. C. Kennedy as Co-Trustee in succession to said R. G. Page (resigned) under the Mortgage and by J. C. Kennedy accepting the appointment as Co-Trustee under the Mortgage in succession to the said R. G. Page, which instrument was recorded in various counties in the States of Oregon and Washington; and

WHEREAS, in the Ninth Supplemental Indenture STANLEY BURG was appointed by the Company as Co-Trustee under the Mortgage in succession to said J. C. KENNEDY (resigned) and in the Ninth Supplemental Indenture Stanley Burg accepted such appointment as Co-Trustee under the Mortgage in succession to said J. C. Kennedy; and

WHEREAS in addition to the property described in the Mortgage, as heretofore supplemented, the Company has acquired certain other property, rights and interests in property; and

WHEREAS, the Company has heretofore issued, in accordance with the provisions of the Mortgage, as supplemented, the following series of First Mortgage Bonds:

<u>Series</u>	<u>Principal Amount Outstanding</u>
3-1/8% Series due 1976.....	None
3-7/8% Series due 1974.....	None
4 % Series due 1974.....	None
4-3/8% Series due 1976.....	None
5-1/8% Series due 1984.....	None
5-1/8% Series due 1986.....	\$ 3,898,000
4-3/4% Series due 1989.....	\$ 4,255,000
5-3/4% Series due 1991.....	\$10,330,000
9-3/8% Series due 1974.....	None
8-5/8% Series due 1996.....	\$13,508,000
12 % Series due 1984.....	None
10-1/2% Series due 1986.....	None
14-3/4% Series due 1989.....	\$30,000,000
10-1/8% Series due 1995.....	\$15,000,000

; and

WHEREAS Section 8 of the Mortgage provides that the form of each series of bonds (other than the First Series) issued thereunder shall be established by Resolution of the Board of Directors of the Company; that the

form of such series, as established by said Board of Directors, shall specify the descriptive title of the bonds and various other terms thereof; and that such Series may also contain such provisions not inconsistent with the provisions of the Mortgage as the Board of Directors may, in its discretion, cause to be inserted therein expressing or referring to the terms and conditions upon which such bonds are to be issued and/or secured under the Mortgage; and

WHEREAS Section 120 of the Mortgage provides, among other things, that any power, privilege or right expressly or impliedly reserved to or in any way conferred upon the Company by any provision of the Mortgage, whether such power, privilege or right is in any way restricted or is unrestricted, may (to the extent permitted by law) be in whole or in part waived or surrendered or subjected to any restriction if at the time unrestricted or to additional restriction if already restricted, and the Company may enter into any further covenants, limitations or restrictions for the benefit of any one or more series of bonds issued thereunder, or the Company may cure any ambiguity contained therein or in any supplemental indenture or may (in lieu of establishment by Resolution as provided in Section 8 of the Mortgage) establish the terms and provisions of any series of bonds other than said First Series, by an instrument in writing executed and acknowledged by the Company in such manner as would be necessary to entitle a conveyance of real estate to record in all of the states in which any property at the time subject to the lien of the Mortgage shall be situated; and

WHEREAS the Company now desires to create a new series of bonds and (pursuant to the provisions of Section 120 of the Mortgage) to add to its covenants and agreements contained in the Mortgage, as heretofore supplemented, certain other covenants and agreements to be observed by it and to alter and amend in certain respects the covenants and provisions contained in the Mortgage, as heretofore supplemented and amended; and

WHEREAS the execution and delivery by the Company of this Fourteenth Supplemental Indenture, and the terms of the bonds of the Fifteenth Series hereinafter referred to, have been duly authorized by the Board of Directors of the Company by appropriate resolutions of said Board of Directors;

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

That Northwest Natural Gas Company, in consideration of the premises and of One Dollar to it duly paid by the Trustees at or before the ensembling and delivery of these presents, the receipt whereof is hereby acknowledged, and in further assurance of the estate, title and rights of the Trustees, and in order further to secure the payment both of the principal of and interest and premium, if any, on the bonds from time to time issued under the Mortgage, according to their tenor and effect, and the performance of all the provisions of the Mortgage (including any instruments supplemental thereto and any modification made as in the Mortgage provided) and of said bonds, hereby grants, bargains, sells, releases, conveys, assigns, transfers, mortgages, pledges, sets over and confirms (subject, however, to Excepted Encumbrances, as defined in Section 6 of the Mortgage) unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees under the Mortgage, and to their successor or successors in said trust, and to said Trustees and their successors and assigns forever, all property, real, personal and mixed, acquired by the Company after the date of the Mortgage, of the kind or nature specifically mentioned in Article XXI of the Mortgage or of any other kind or nature (except any herein or in the Mortgage expressly excepted) now owned or, subject to the provisions of subsection (I) of Section 87 of the Mortgage, hereafter acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) and wheresoever situated, including (without in anywise limiting or impairing by the enumeration of the same the scope and intent of the foregoing) all lands, gas plants, by-product plants, gas holders, gas mains and pipes; all power sites, water rights, reservoirs, canals, raceways, dams, aqueducts, and all other rights or means for appropriating, conveying, storing and supplying water; all rights of way and roads; all plants for the generation of electricity by steam, water and/or other power; all power houses, street lighting systems, standards and other equipment incidental thereto, telephone, radio, television and air-conditioning systems and equipment incidental thereto, water works, water systems, steam heat and hot water plants, substations, lines, service and supply systems, bridges, culverts, tracts, ice or refrigeration plants and equipment, offices, buildings and other structures and the equipment thereof; all machinery, engines, boilers, dynamos, gas, electric and other machines, regulators, meters, transformers, generators, motors, gas, electrical and mechanical appliances, conduits, cables, gas, water, steam heat

or other pipes, service pipes, fittings, valves and connections, pole and transmission lines, wires, cables, tools, implements, apparatus, furniture and chattels; all franchises, consents or permits; all lines for the transmission and distribution of gas, electric current, steam heat or water for any purpose including mains, pipes, conduits, towers, poles, wires, cables, ducts and all apparatus for use in connection therewith; all real estate, lands, easements, servitudes, licenses, permits, franchises, privileges, rights of way and other rights in or relating to public or private property, real or personal, or the occupancy of such property and (except as herein or in the Mortgage, as heretofore supplemented, expressly excepted) all right, title and interest the Company may now have or may hereafter acquire in and to any and all property of any kind or nature wheresoever situated.

TOGETHER WITH all and singular the tenements, hereditaments, prescriptions, servitudes and appurtenances belonging or in anywise appertaining to the aforementioned property or any part thereof, with the reversion and reversions, remainder and remainders and (subject to the provisions of Section 57 of the Mortgage) the tolls, rents, revenues, issues, earnings, income, product and profits thereof, and all the estate, right, title and interest and claim whatsoever, at law as well as in equity, which the Company now has or may hereafter acquire in and to the aforementioned property and franchises and every part and parcel thereof.

IT IS HEREBY AGREED by the Company that, subject to the provisions of subsection (I) of Section 87 of the Mortgage, all the property, rights, and franchises acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) after the date hereof, except any herein or in the Mortgage, as heretofore supplemented, expressly excepted, shall be and are as fully granted and conveyed hereby and by the Mortgage, and as fully embraced within the lien hereof and the lien of the Mortgage, as supplemented, as if such property, rights and franchises were now owned by the Company and were specifically described herein or in the Mortgage, as heretofore supplemented, and conveyed hereby or thereby. Provided that the following are not and are not intended to be now or hereafter granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed hereunder and are hereby expressly excepted from the lien and operation of this Fourteenth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, viz: (1) cash, shares of stock, bonds, notes and

other obligations and other securities not hereafter specifically pledged, paid, deposited, delivered or held under the Mortgage, as heretofore supplemented, or covenanted so to be; (2) merchandise, equipment, apparatus, materials or supplies held for the purpose of sale or other disposition in the usual course of business; fuel, oil and similar materials and supplies consumable in the operation of any of the properties of the Company; all aircraft, tractors, rolling stock, trolley coaches, buses, motor coaches, automobiles, motor trucks, and other vehicles and materials and supplies held for the purpose of repairing or replacing (in whole or in part) any of the same; (3) bills, notes and accounts receivable, judgments, demands and choses in action, and all contracts, leases and operating agreements not specifically pledged under the Mortgage, as heretofore supplemented, or covenanted so to be; (4) the last day of the term of any lease or leasehold which may be or become subject to the lien of the Mortgage; (5) gas, petroleum, carbon, chemicals, light oils, tar products, electric energy, steam, water, ice, and other materials or products, manufactured, stored, generated, produced, purchased or acquired by the Company for sale, distribution or use in the ordinary course of its business; all timber, minerals, mineral rights and royalties and all Natural Gas and Oil Production Property, as defined in Section 4 of the Mortgage; and (6) the Company's franchise to be a corporation; provided, however, that the property and rights expressly excepted from the lien and operation of this Fourteenth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, in the above subdivisions (2) and (3) shall (to the extent permitted by law) cease to be so excepted in the event and as of the date that either or both of the Trustees or a receiver or trustee shall enter upon and take possession of the Mortgaged and Pledged Property in the manner provided in Article XIII of the Mortgage by reason of the occurrence of a Default as defined in Section 65 thereof.

TO HAVE AND TO HOLD all such properties, real, personal and mixed, granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed by the Company as aforesaid, or intended so to be, unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees, and their successors and assigns forever.

IN TRUST NEVERTHELESS, for the same purposes and upon the same terms, trusts and conditions and subject to and with the same provisos and covenants as are set forth

in the Mortgage, as heretofore supplemented, this Fourteenth Supplemental Indenture being supplemental thereto.

AND IT IS HEREBY COVENANTED by the Company that all the terms, conditions, provisos, covenants and provisions contained in the Mortgage, as heretofore supplemented, shall affect and apply to the property hereinbefore described and conveyed, and to the estates, rights, obligations and duties of the Company and the Trustees and the beneficiaries of the trust with respect to said property, and to the Trustees and their successors in the trust, in the same manner and with the same effect as if the said property had been owned by the Company at the time of the execution of the Mortgage, and had been specifically and at length described in and conveyed to said Trustees by the Mortgage as a part of the property therein stated to be conveyed.

The Company further covenants and agrees to and with the Trustees and their successors in said trust under the Mortgage, as follows:

ARTICLE I.

Fifteenth Series of Bonds.

SECTION 1.01. There shall be a series of bonds designated "10.35% Series due November 1, 1997" (herein sometimes referred to as the "Fifteenth Series"), each of which shall also bear the descriptive title First Mortgage Bond, and the form thereof, which shall be established by Resolution of the Board of Directors of the Company, shall contain suitable provisions with respect to the matters hereinafter in this Section specified. Bonds of the Fifteenth Series shall be limited to \$15,000,000, in aggregate principal amount at any one time Outstanding except as provided in Section 16 of the Mortgage and shall mature on November 1, 1997, and shall be issued as fully registered bonds in denominations of One Thousand Dollars and, at the option of the Company, in any multiple or multiples of One Thousand Dollars (the exercise of such option to be evidenced by the execution and delivery thereof). Bonds of the Fifteenth Series shall bear interest at the rate of 10.35% per annum, payable semi-annually on May 1 and November 1 of each year; and the principal of, premium, if any, and interest on each said bond shall be payable at the office or agency of the Company in the Borough of Manhattan, The City of New York, in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts.

Bonds of the Fifteenth Series shall be dated as in Section 10 of the Mortgage provided.

Bonds of the Fifteenth Series shall be redeemable either at the option of the Company or pursuant to the requirements of the Mortgage in whole at any time, or in part from time to time, prior to maturity, upon notice, as provided in Section 52 of the Mortgage, mailed at least thirty (30) days prior to the date fixed for redemption, at the following general redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

GENERAL REDEMPTION PRICES

If redeemed during the 12 months period ending October 31,

1986.....	109.35%	1992.....	103.74%
1987.....	108.42%	1993.....	102.81%
1988.....	107.48%	1994.....	101.87%
1989.....	106.55%	1995.....	100.94%
1990.....	105.61%	1996.....	100.00%
1991.....	104.68%	1997.....	100.00%

in each case, together with accrued interest to the date fixed for redemption; provided, however, that no bonds of the Fifteenth Series may be redeemed at said general redemption prices prior to November 1, 1990, as part of any refunding operation involving, directly or indirectly, the incurring of indebtedness by the Company having a cost (calculated in accordance with acceptable financial practice) lower than 10.60% per annum.

Bonds of the Fifteenth Series shall also be redeemable in whole at any time, or in part from time to time, prior to maturity, upon like notice, by the application (either at the option of the Company or pursuant to the requirements of the Mortgage) of cash deposited with the Corporate Trustee pursuant to the provisions of Section 64 of the Mortgage (so long as any bonds of the Sixth, Seventh, Eighth or Tenth Series remain Outstanding) or with the Proceeds of Released Property, at the following special redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

SPECIAL REDEMPTION PRICES

If redeemed during the 12 months period ending October 31,

1986.....	100.00%	1992.....	100.00%
1987.....	100.00%	1993.....	100.00%
1988.....	100.00%	1994.....	100.00%
1989.....	100.00%	1995.....	100.00%
1990.....	100.00%	1996.....	100.00%
1991.....	100.00%	1997.....	100.00%

in each case, together with accrued interest to the date fixed for redemption.

ARTICLE II.

Exchanges and Transfers of Bonds of the Fifteenth Series.

SECTION 2.01. At the option of the registered owner, any bonds of the Fifteenth Series, upon surrender thereof, for cancellation, at the office or agency of the Company in the Borough of Manhattan, The City of New York, shall (subject to the provisions of Section 12 of the Mortgage) be exchangeable for a like aggregate principal amount of bonds of the same series of other authorized denominations.

Transfers of bonds of the Fifteenth Series may be registered (subject to the provisions of Section 12 of the Mortgage) at the office or agency of the Company in the Borough of Manhattan, The City of New York or such other locations as the Company may designate from time to time.

Upon any registration of transfer or exchange of bonds of the Fifteenth Series, the Company may make a charge therefor sufficient to reimburse it for any tax or taxes required to be paid solely by virtue of such transfer by the Company, as provided in Section 12 of the Mortgage, but the Company hereby waives any right to make a charge in addition thereto for any registration or exchange or transfer of bonds of the Fifteenth Series.

ARTICLE III.

Miscellaneous Provisions.

SECTION 3.01. Subject to the amendments provided for in this Fourteenth Supplemental Indenture, the terms defined in the Mortgage, as heretofore supplemented, shall, for all purposes of this Fourteenth Supplemental Indenture, have the meanings specified in the Mortgage, as heretofore supplemented.

SECTION 3.02. The Trustees hereby accept the trusts hereby declared, provided, created or supplemented, and agree to perform the same upon the terms and conditions herein and in the Mortgage, as heretofore supplemented, set forth, including the following:

The Trustees shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Fourteenth Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made by the Company solely. In general each and every term and condition contained in Article XVII of the Mortgage shall apply to and form part of this Fourteenth Supplemental Indenture with the same force and effect as if the same were herein set forth in full, with such omissions, variations and insertions, if any, as may be appropriate to make the same conform to the provisions of the Fourteenth Supplemental Indenture.

SECTION 3.03. Whenever in this Fourteenth Supplemental Indenture any of the parties hereto is named or referred to, this shall, subject to the provisions of Articles XVI and XVII of the Mortgage, be deemed to include the successors or assigns of such party, and all the covenants and agreements in this Fourteenth Supplemental Indenture contained by or on behalf of the Company or by or on behalf of the Trustees shall bind and inure to the benefit of the respective successors and assigns of such parties whether so expressed or not.

SECTION 3.04. Nothing in this Fourteenth Supplemental Indenture, expressed or implied, is intended, or shall be construed, to confer upon, or to give to, any person, firm or corporation, other than the parties hereto and the holders of the bonds and coupons outstanding under the Mortgage, any right, remedy, or claim under or by reason of this Fourteenth Supplemental Indenture or any covenant, condition, stipulation, promise or agreement hereof, and all the covenants, conditions, stipulations, promises and agreements by or on behalf of the Company as

set forth in this Fourteenth Supplemental Indenture shall be for the sole and exclusive benefit of the parties hereto, and of the holders of the bonds and of the coupons outstanding under the Mortgage.

SECTION 3.05. This Fourteenth Supplemental Indenture has been executed in several identical counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, Northwest Natural Gas Company, party hereto of the first part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by its President or one of its Vice Presidents, and its corporate seal to be attested by its Secretary or one of its Assistant Secretaries for and in its behalf on the 22nd day of November 1985, as of November 1, 1985, in Portland, Oregon; Bankers Trust Company, one of the parties hereto of the second part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by one of its Vice Presidents or one of its Assistant Vice Presidents and its corporate seal to be attested by one of its Assistant Secretaries; and Stanley Burg, one of the parties hereto of the second part, has hereunto set his hand and affixed his seal, all in The City of New York, on the 26th day of November 1985, as of November 1, 1985.

NORTHWEST NATURAL GAS COMPANY

[Corporate Seal]

By Robert L. Ridgley
President

Attest:

C. J. Rue
Secretary

Executed, sealed and delivered
by NORTHWEST NATURAL GAS COM-
PANY in the presence of:

W. E. Radford

Leslie K. Alldrin

BANKERS TRUST COMPANY, as Trustee,

[Corporate Seal]

By Joan M. Morgan
Vice President

Attest:

Lloyd McKenzie
Assistant Secretary

Stanley Burg
STANLEY BURG, as Trustee

Executed, sealed and delivered
by BANKERS TRUST COMPANY and
STANLEY BURG in the presence
of:

Gail Violick Boylan

Shirley R. West

STATE OF OREGON)
 : ss.:
COUNTY OF MULTNOMAH)

November 22, A.D. 1985.

Before me personally appeared ROBERT L. RIDGLEY, who, being duly sworn, did say that he is President of NORTHWEST NATURAL GAS COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 22nd day of November 1985, before me personally appeared ROBERT L. RIDGLEY, to me known to be President of NORTHWEST NATURAL GAS COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

Virginia M. Vance
Virginia M. Vance
Notary Public, State of Oregon
My Commission Expires 3/24/87

[Notarial Seal]

STATE OF NEW YORK)
 : ss.:
COUNTY OF NEW YORK)

November 26, A.D. 1985.

Before me personally appeared JOAN M. MORGAN, who, being duly sworn, did say that she is a Vice President of BANKERS TRUST COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and she acknowledged said instrument to be its voluntary act and deed.

On this 26th day of November 1985, before me personally appeared JOAN M. MORGAN, to me known to be a Vice President of BANKERS TRUST COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that she was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

Valerie Ann Hedberg
Valerie Ann Hedberg
Notary Public, State of New York
No. 31-4836412
Qualified in New York County
Commission Expires March 30, 1987

[Notarial Seal]

STATE OF NEW YORK)
 : ss.:
COUNTY OF NEW YORK)

November 26, A.D. 1985.

Before me personally appeared the above-named STANLEY BURG and acknowledged the foregoing instrument to be his voluntary act and deed.

On this day personally appeared before me STANLEY BURG to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 26th day of November, 1985.

Valerie Ann Hedberg
Valerie Ann Hedberg
Notary Public, State of New York
No. 31-4836412
Qualified in New York County
Commission Expires March 31, 1987

[Notarial Seal]

SUMMARY OF RECORDING DATA
IN THE STATE OF OREGON
Real Property Mortgage Records

<u>Counterpart No.</u>	<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
10	Benton	December 10, 1985	M-72799-85	-
11	Clackamas	December 10, 1985	8543580	-
12	Clatsop	December 10, 1985	648	268
13	Columbia	December 10, 1985	193	990
14	Coos	December 10, 1985	85-5-6578	-
15	Douglas	December 10, 1985	933	243
16	Hood River	December 10, 1985	852267	-
31	Lane	January 31, 1986	1386R	-
18	Lincoln	December 10, 1985	166	2385
19	Linn	December 10, 1985	399	500
20	Marion	December 10, 1985	431	294
21	Multnomah	December 10, 1985	1870	308
22	Polk	December 11, 1985	191	472
23	Tillamook	December 10, 1985	301	588
24	Wasco	December 10, 1985	852802	-
25	Washington	December 10, 1985	85048868	-
26	Yamhill	December 11, 1985	199	1339

Filed as a Financing Statement

<u>Counterpart No.</u>	<u>Office</u>	<u>Date Filed for Record</u>	<u>File No.</u>
8	Secretary of State	December 10, 1985	K 20799

IN THE STATE OF WASHINGTON

Real Property Mortgage Records

<u>Counterpart No.</u>	<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
28	Clark	December 11, 1985	85-12110068	-
29	Klickitat	December 10, 1985	136	660
30	Skamania	December 11, 1985	62	284

Filed as a Financing Statement

<u>Counterpart No.</u>	<u>Office</u>	<u>Date Filed for Record</u>	<u>File No.</u>
27	Secretary of State	December 10, 1985	85-345-0000

[Conformed Copy]

NORTHWEST NATURAL GAS COMPANY

TO

BANKERS TRUST COMPANY

AND

STANLEY BURG (SUCCESSOR TO R. G. PAGE AND J. C. KENNEDY),

As Trustees under the Mortgage and
Deed of Trust, dated as of July 1,
1946, of Portland Gas & Coke Company
(now Northwest Natural Gas Company)

FIFTEENTH SUPPLEMENTAL INDENTURE

providing among other things for
First Mortgage Bonds, 9 3/8% Series due 2011

Dated as of July 1, 1986

FIFTEENTH SUPPLEMENTAL INDENTURE

INDENTURE, dated as of the 1st day of July, 1986, made and entered into by and between NORTHWEST NATURAL GAS COMPANY (formerly Portland Gas & Coke Company), a corporation of the State of Oregon, whose post office address is One Pacific Square, 220 N.W. Second Avenue, Portland, Oregon 97209 (hereinafter sometimes called the Company), party of the first part, and BANKERS TRUST COMPANY, a corporation of the State of New York, whose post office address is One Bankers Trust Plaza, New York, New York 10005 (hereinafter sometimes called the Corporate Trustee) and STANLEY BURG (successor to R. G. PAGE and J. C. KENNEDY), whose post office address is 23 Dover Green, Staten Island, New York 10312 (hereinafter sometimes called the Co-Trustee), parties of the second part (the Corporate Trustee and the Co-Trustee being hereinafter together sometimes called the Trustees), as Trustees under the Mortgage and Deed of Trust, dated as of July 1, 1946 (hereinafter called the Mortgage), executed and delivered by Portland Gas & Coke Company (now Northwest Natural Gas Company) to secure the payment of bonds issued or to be issued under and in accordance with the provisions of the Mortgage, this indenture (hereinafter called Fifteenth Supplemental Indenture) being supplemental thereto;

WHEREAS the Mortgage was or is to be recorded in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Fifteenth Supplemental Indenture is to be recorded; and

WHEREAS by the Mortgage the Company covenanted that it would execute and deliver such supplemental indenture or indentures and such further instruments and do such further acts as might be necessary or proper to carry out more effectually the purposes of the Mortgage and to make subject to the lien of the Mortgage any property thereafter acquired, made or constructed and intended to be subject to the lien thereof; and

WHEREAS the Company executed and delivered to the Trustees its First Supplemental Indenture, dated as of June 1, 1949 (hereinafter called its First Supplemental Indenture), its Second Supplemental Indenture, dated as of March 1, 1954 (hereinafter called its Second Supplemental Indenture), its Third Supplemental Indenture, dated as of April 1, 1956 (hereinafter called its Third Supplemental Indenture), its Fourth Supplemental Indenture, dated as of February 1, 1959 (hereinafter called its Fourth Supple-

mental Indenture), its Fifth Supplemental Indenture, dated as of July 1, 1961 (hereinafter called its Fifth Supplemental Indenture), its Sixth Supplemental Indenture, dated as of January 1, 1964 (hereinafter called its Sixth Supplemental Indenture), its Seventh Supplemental Indenture, dated as of March 1, 1966 (hereinafter called its Seventh Supplemental Indenture), its Eighth Supplemental Indenture, dated as of December 1, 1969 (hereinafter called its Eighth Supplemental Indenture), its Ninth Supplemental Indenture, dated as of April 1, 1971 (hereinafter called its Ninth Supplemental Indenture), its Tenth Supplemental Indenture, dated as of January 1, 1975 (hereinafter called its Tenth Supplemental Indenture), its Eleventh Supplemental Indenture, dated as of December 1, 1975 (hereinafter called its Eleventh Supplemental Indenture), its Twelfth Supplemental Indenture, dated as of July 1, 1981 (hereinafter called its Twelfth Supplemental Indenture) and its Thirteenth Supplemental Indenture, dated as of June 1, 1985 (hereinafter called its Thirteenth Supplemental Indenture); and

WHEREAS said First through Thirteenth Supplemental Indentures were filed for record, and were recorded and indexed, as a mortgage of both real and personal property, in the official records of various counties in the States of Oregon and Washington which counties include or will include all counties in which this Fifteenth Supplemental Indenture is to be recorded; and

WHEREAS the Company executed and delivered to the Trustees its Fourteenth Supplemental Indenture, dated as of November 1, 1985 (hereinafter called its Fourteenth Supplemental Indenture); and

WHEREAS said Fourteenth Supplemental Indenture was filed for record, and was recorded and indexed, as a mortgage of both real and personal property, and financing statements were filed, in the official records of the several counties and other offices in the States of Oregon and Washington listed below, as follows:

OREGON

Real Property Mortgage Records

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Benton	December 10, 1985	M-72799-85	-
Clackamas	December 10, 1985	8543580	-
Clatsop	December 10, 1985	648	268
Columbia	December 10, 1985	193	990
Coos	December 10, 1985	85-5-6578	-
Douglas	December 10, 1985	933	243
Hood River	December 10, 1985	852267	-
Lane	January 31, 1986	1386R	-
Lincoln	December 10, 1985	166	2385
Linn	December 10, 1985	399	500
Marion	December 10, 1985	431	294
Multnomah	December 10, 1985	1870	308
Polk	December 11, 1985	191	472
Tillamook	December 10, 1985	301	588
Wasco	December 10, 1985	852802	-
Washington	December 10, 1985	85048868	-
Yamhill	December 11, 1985	199	1339

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File No.</u>
Secretary of State	December 10, 1985	K 20799

WASHINGTON

Real Property Mortgage Records

<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
Clark	December 11, 1985	85-12110068	-
Klickitat	December 10, 1985	136	660
Skamania	December 11, 1985	62	284

Filed as a Financing Statement

<u>Office</u>	<u>Date Filed for Record</u>	<u>File Number</u>
Secretary of State	December 10, 1985	85-345-0000

; and

WHEREAS an instrument dated as of June 14, 1951, was executed by the Company appointing J. C. Kennedy as Co-Trustee in succession to said R. G. Page (resigned) under the Mortgage and by J. C. Kennedy accepting the appointment as Co-Trustee under the Mortgage in succession to the said R. G. Page, which instrument was recorded in various counties in the States of Oregon and Washington; and

WHEREAS, in the Ninth Supplemental Indenture STANLEY BURG was appointed by the Company as Co-Trustee under the Mortgage in succession to said J. C. KENNEDY (resigned) and in the Ninth Supplemental Indenture Stanley Burg accepted such appointment as Co-Trustee under the Mortgage in succession to said J. C. Kennedy; and

WHEREAS in addition to the property described in the Mortgage, as heretofore supplemented, the Company has acquired certain other property, rights and interests in property; and

WHEREAS, the Company has heretofore issued, in accordance with the provisions of the Mortgage, as supplemented, the following series of First Mortgage Bonds:

<u>Series</u>	<u>Principal Amount Outstanding at the Close of Business July 1, 1986</u>
3-1/8% Series due 1976.....	None
3-7/8% Series due 1974.....	None
4 % Series due 1974.....	None
4-3/8% Series due 1976.....	None
5-1/8% Series due 1984.....	None
5-1/8% Series due 1986.....	None
4-3/4% Series due 1989.....	\$ 4,230,000
5-3/4% Series due 1991.....	\$10,330,000
9-3/8% Series due 1974.....	None
8-5/8% Series due 1996.....	\$13,400,000
12 % Series due 1984.....	None
10-1/2% Series due 1986.....	None
14-3/4% Series due 1989.....	None
10-1/8% Series due 1995.....	\$15,000,000
10.35% Series due November 1, 1997.....	\$15,000,000

; and

WHEREAS Section 8 of the Mortgage provides that the form of each series of bonds (other than the First Series) issued thereunder shall be established by Resolution of the Board of Directors of the Company; that the form of such series, as established by said Board of Directors, shall specify the descriptive title of the bonds and various other terms thereof; and that such Series may also contain such provisions not inconsistent with the provisions of the Mortgage as the Board of Directors may, in its discretion, cause to be inserted therein expressing or referring to the terms and conditions upon which such bonds are to be issued and/or secured under the Mortgage; and

WHEREAS Section 120 of the Mortgage provides, among other things, that any power, privilege or right expressly or impliedly reserved to or in any way conferred upon the Company by any provision of the Mortgage, whether such power, privilege or right is in any way restricted or is unrestricted, may (to the extent permitted by law) be in whole or in part waived or surrendered or subjected to any restriction if at the time unrestricted or to additional restriction if already restricted, and the Company may enter into any further covenants, limitations or restrictions for the benefit of any one or more series of bonds issued thereunder, or the Company may cure any ambiguity contained therein or in any supplemental indenture or may (in lieu of establishment by Resolution as provided in Section 8 of the Mortgage) establish the terms and provisions of any series of bonds other than said First Series, by an instrument in writing executed and acknowledged by the Company in such manner as would be necessary to entitle a conveyance of real estate to record in all of the states in which any property at the time subject to the lien of the Mortgage shall be situated; and

WHEREAS the Company now desires to create a new series of bonds and (pursuant to the provisions of Section 120 of the Mortgage) to add to its covenants and agreements contained in the Mortgage, as heretofore supplemented, certain other covenants and agreements to be observed by it and to alter and amend in certain respects the covenants and provisions contained in the Mortgage, as heretofore supplemented and amended; and

WHEREAS the execution and delivery by the Company of this Fifteenth Supplemental Indenture, and the terms of the bonds of the Sixteenth Series hereinafter referred to, have been duly authorized by the Board of

Directors of the Company by appropriate resolutions of said Board of Directors;

NOW, THEREFORE, THIS INDENTURE WITNESSETH:

That Northwest Natural Gas Company, in consideration of the premises and of One Dollar to it duly paid by the Trustees at or before the ensembling and delivery of these presents, the receipt whereof is hereby acknowledged, and in further assurance of the estate, title and rights of the Trustees, and in order further to secure the payment both of the principal of and interest and premium, if any, on the bonds from time to time issued under the Mortgage, according to their tenor and effect, and the performance of all the provisions of the Mortgage (including any instruments supplemental thereto and any modification made as in the Mortgage provided) and of said bonds, hereby grants, bargains, sells, releases, conveys, assigns, transfers, mortgages, pledges, sets over and confirms (subject, however, to Excepted Encumbrances, as defined in Section 6 of the Mortgage) unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees under the Mortgage, and to their successor or successors in said trust, and to said Trustees and their successors and assigns forever, all property, real, personal and mixed, acquired by the Company after the date of the Mortgage, of the kind or nature specifically mentioned in Article XXI of the Mortgage or of any other kind or nature (except any herein or in the Mortgage expressly excepted) now owned or, subject to the provisions of subsection (I) of Section 87 of the Mortgage, hereafter acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) and wheresoever situated, including (without in anywise limiting or impairing by the enumeration of the same the scope and intent of the foregoing) all lands, gas plants, by-product plants, gas holders, gas mains and pipes; all power sites, water rights, reservoirs, canals, raceways, dams, aqueducts, and all other rights or means for appropriating, conveying, storing and supplying water; all rights of way and roads; all plants for the generation of electricity by steam, water and/or other power; all power houses, street lighting systems, standards and other equipment incidental thereto, telephone, radio, television and air-conditioning systems and equipment incidental thereto, water works, water systems, steam heat and hot water plants, substations, lines, service and supply systems, bridges, culverts, tracts, ice or refrigeration plants and equipment, offices, buildings and other structures and the equipment thereof; all machinery, engines, boilers, dynamos, gas,

electric and other machines, regulators, meters, transformers, generators, motors, gas, electrical and mechanical appliances, conduits, cables, gas, water, steam heat or other pipes, service pipes, fittings, valves and connections, pole and transmission lines, wires, cables, tools, implements, apparatus, furniture and chattels; all franchises, consents or permits; all lines for the transmission and distribution of gas, electric current, steam heat or water for any purpose including mains, pipes, conduits, towers, poles, wires, cables, ducts and all apparatus for use in connection therewith; all real estate, lands, easements, servitudes, licenses, permits, franchises, privileges, rights of way and other rights in or relating to public or private property, real or personal, or the occupancy of such property and (except as herein or in the Mortgage, as heretofore supplemented, expressly excepted) all right, title and interest the Company may now have or may hereafter acquire in and to any and all property of any kind or nature wheresoever situated.

TOGETHER WITH all and singular the tenements, hereditaments, prescriptions, servitudes and appurtenances belonging or in anywise appertaining to the aforementioned property or any part thereof, with the reversion and reversions, remainder and remainders and (subject to the provisions of Section 57 of the Mortgage) the tolls, rents, revenues, issues, earnings, income, product and profits thereof, and all the estate, right, title and interest and claim whatsoever, at law as well as in equity, which the Company now has or may hereafter acquire in and to the aforementioned property and franchises and every part and parcel thereof.

IT IS HEREBY AGREED by the Company that, subject to the provisions of subsection (I) of Section 87 of the Mortgage, all the property, rights, and franchises acquired by the Company (by purchase, consolidation, merger, donation, construction, erection or in any other way) after the date hereof, except any herein or in the Mortgage, as heretofore supplemented, expressly excepted, shall be and are as fully granted and conveyed hereby and by the Mortgage, and as fully embraced within the lien hereof and the lien of the Mortgage, as supplemented, as if such property, rights and franchises were now owned by the Company and were specifically described herein or in the Mortgage, as heretofore supplemented, and conveyed hereby or thereby. Provided that the following are not and are not intended to be now or hereafter granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed hereunder and are hereby expressly excepted from the lien and operation

of this Fifteenth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, viz: (1) cash, shares of stock, bonds, notes and other obligations and other securities not hereafter specifically pledged, paid, deposited, delivered or held under the Mortgage, as heretofore supplemented, or covenanted so to be; (2) merchandise, equipment, apparatus, materials or supplies held for the purpose of sale or other disposition in the usual course of business; fuel, oil and similar materials and supplies consumable in the operation of any of the properties of the Company; all aircraft, tractors, rolling stock, trolley coaches, buses, motor coaches, automobiles, motor trucks, and other vehicles and materials and supplies held for the purpose of repairing or replacing (in whole or in part) any of the same; (3) bills, notes and accounts receivable, judgments, demands and choses in action, and all contracts, leases and operating agreements not specifically pledged under the Mortgage, as heretofore supplemented, or covenanted so to be; (4) the last day of the term of any lease or leasehold which may be or become subject to the lien of the Mortgage; (5) gas, petroleum, carbon, chemicals, light oils, tar products, electric energy, steam, water, ice, and other materials or products, manufactured, stored, generated, produced, purchased or acquired by the Company for sale, distribution or use in the ordinary course of its business; all timber, minerals, mineral rights and royalties and all Natural Gas and Oil Production Property, as defined in Section 4 of the Mortgage; and (6) the Company's franchise to be a corporation; provided, however, that the property and rights expressly excepted from the lien and operation of this Fifteenth Supplemental Indenture and from the lien and operation of the Mortgage, as heretofore supplemented, in the above subdivisions (2) and (3) shall (to the extent permitted by law) cease to be so excepted in the event and as of the date that either or both of the Trustees or a receiver or trustee shall enter upon and take possession of the Mortgaged and Pledged Property in the manner provided in Article XIII of the Mortgage by reason of the occurrence of a Default as defined in Section 65 thereof.

TO HAVE AND TO HOLD all such properties, real, personal and mixed, granted, bargained, sold, released, conveyed, assigned, transferred, mortgaged, pledged, set over or confirmed by the Company as aforesaid, or intended so to be, unto Stanley Burg and (to the extent of its legal capacity to hold the same for the purposes hereof) to Bankers Trust Company, as Trustees, and their successors and assigns forever.

IN TRUST NEVERTHELESS, for the same purposes and upon the same terms, trusts and conditions and subject to and with the same provisos and covenants as are set forth in the Mortgage, as heretofore supplemented, this Fifteenth Supplemental Indenture being supplemental thereto.

AND IT IS HEREBY COVENANTED by the Company that all the terms, conditions, provisos, covenants and provisions contained in the Mortgage, as heretofore supplemented, shall affect and apply to the property hereinbefore described and conveyed, and to the estates, rights, obligations and duties of the Company and the Trustees and the beneficiaries of the trust with respect to said property, and to the Trustees and their successors in the trust, in the same manner and with the same effect as if the said property had been owned by the Company at the time of the execution of the Mortgage, and had been specifically and at length described in and conveyed to said Trustees by the Mortgage as a part of the property therein stated to be conveyed.

The Company further covenants and agrees to and with the Trustees and their successors in said trust under the Mortgage, as follows:

ARTICLE I.

Sixteenth Series of Bonds.

SECTION 1.01. There shall be a series of bonds designated "9 3/8% Series due 2011" (herein sometimes referred to as the "Sixteenth Series"), each of which shall also bear the descriptive title First Mortgage Bond, and the form thereof, which shall be established by Resolution of the Board of Directors of the Company, shall contain suitable provisions with respect to the matters hereinafter in this Section specified. Bonds of the Sixteenth Series shall be limited to \$50,000,000, in aggregate principal amount at any one time Outstanding except as provided in Section 16 of the Mortgage and shall mature on July 1, 2011, and shall be issued as fully registered bonds in denominations of One Thousand Dollars and, at the option of the Company, in any multiple or multiples of One Thousand Dollars (the exercise of such option to be evidenced by the execution and delivery thereof). Bonds of the Sixteenth Series shall bear interest at the rate of 9 3/8% per annum, payable semi-annually on January 1 and July 1 of each year; and the principal of, premium, if any, and interest on each said bond shall be payable at the office or agency of the Company in the Borough of

Manhattan, The City of New York, in such coin or currency of the United States of America as at the time of payment is legal tender for public and private debts. Bonds of the Sixteenth Series shall be dated as in Section 10 of the Mortgage provided.

(I) Bonds of the Sixteenth Series shall be redeemable either at the option of the Company or pursuant to the requirements of the Mortgage in whole at any time, or in part from time to time, prior to maturity, upon notice, as provided in Section 52 of the Mortgage, mailed at least thirty (30) days prior to the date fixed for redemption, at the following general redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

GENERAL REDEMPTION PRICES

If redeemed during the 12 months period ending June 30,

1987.....	108.63%	2000.....	103.02%
1988.....	108.19%	2001.....	102.59%
1989.....	107.76%	2002.....	102.16%
1990.....	107.33%	2003.....	101.72%
1991.....	106.90%	2004.....	101.29%
1992.....	106.47%	2005.....	100.86%
1993.....	106.04%	2006.....	100.43%
1994.....	105.61%	2007.....	100.00%
1995.....	105.17%	2008.....	100.00%
1996.....	104.74%	2009.....	100.00%
1997.....	104.31%	2010.....	100.00%
1998.....	103.88%	2011.....	100.00%
1999.....	103.45%		

in each case, together with accrued interest to the date fixed for redemption; provided, however, that no bonds of the Sixteenth Series may be redeemed pursuant to this subdivision (I) prior to July 1, 1991 as part of any refunding operation involving, directly or indirectly, the incurring of indebtedness by the Company having a cost (calculated in accordance with acceptable financial practice) lower than 9.531% per annum.

(II) Bonds of the Sixteenth Series shall also be redeemable in whole at any time, or in part from time to time, prior to maturity, upon like notice, by the application (either at the option of the Company or pursuant to the requirements of the Mortgage) of cash deposited with the Corporate Trustee pursuant to the

provisions of Section 64 of the Mortgage or of Section 2 hereof or with the Proceeds of Released Property; provided, however, that in the case of application of cash deposited with the Corporate Trustee pursuant to the provisions of Section 2 hereof, if the date fixed for such redemption shall be prior to January 1 of the calendar year in which such deposit of cash shall become due under the provisions of Section 2 hereof, they shall be redeemable at the general redemption prices set forth in subdivision (1) of this Section, together with accrued interest to the date fixed for redemption; and provided further, that

(1) in the case of application of cash deposited with the Corporate Trustee pursuant to the provisions of Section 2 hereof if the date fixed for such redemption shall be on or after January 1 of the calendar year in which such deposit of cash shall become due in accordance with the Total Special Redemption Fund Requirement for said calendar year, or

(2) in the case of redemption by the application of cash deposited with the Corporate Trustee pursuant to the provisions of Section 64 of the Mortgage or with the Proceeds of Released Property,

they shall be redeemable at the following special redemption prices, expressed in percentages of the principal amount of the bonds to be redeemed:

SPECIAL REDEMPTION PRICES

If redeemed during the 12 months period ending
June 30,

1987.....	100.00%	2000.....	100.00%
1988.....	100.00%	2001.....	100.00%
1989.....	100.00%	2002.....	100.00%
1990.....	100.00%	2003.....	100.00%
1991.....	100.00%	2004.....	100.00%
1992.....	100.00%	2005.....	100.00%
1993.....	100.00%	2006.....	100.00%
1994.....	100.00%	2007.....	100.00%
1995.....	100.00%	2008.....	100.00%
1996.....	100.00%	2009.....	100.00%
1997.....	100.00%	2010.....	100.00%
1998.....	100.00%	2011.....	100.00%
1999.....	100.00%		

in each case, together with accrued interest to the date fixed for redemption.

(III) At the option of the registered owner, any bonds of the Sixteenth Series, upon surrender thereof, for cancellation, at the office or agency of the Company in the Borough of Manhattan, The City of New York, shall (subject to the provisions of Section 12 of the Mortgage) be exchangeable for a like aggregate principal amount of bonds of the same series of other authorized denominations.

Transfers of bonds of the Sixteenth Series may be registered (subject to the provisions of Section 12 of the Mortgage) at the office or agency of the Company in the Borough of Manhattan, The City of New York.

Upon any registration of transfer or exchange of bonds of the Sixteenth Series, the Company may make a charge therefor sufficient to reimburse it for any tax or taxes or other governmental charge, as provided in Section 12 of the Mortgage, but the Company hereby waives any right to make a charge in addition thereto for any registration or exchange or transfer of bonds of the Sixteenth Series.

ARTICLE II.

Special Redemption Fund for Bonds of the Sixteenth Series

Section 2. The Company covenants that, unless all bonds of the Sixteenth Series shall have ceased to be Outstanding, it will, as a Special Redemption Fund for the retirement of bonds of the Sixteenth Series, deliver to the Corporate Trustee an amount in cash and/or principal amount of bonds of the Sixteenth Series, on July 1 of each year, beginning with the year 1991 to and including the year 2010, equal to the Total Special Redemption Fund Requirement for said calendar year. The term "Total Special Redemption Fund Requirement" shall mean for any calendar year \$2,000,000 in cash and/or principal amount of bonds of the Sixteenth Series (herein called the "Mandatory Special Redemption Fund Requirement") plus the Optional Special Redemption Fund Payment, if any, for such calendar year. The term "Optional Special Redemption Fund Payment" shall mean, for any calendar year, any amount, not in excess of \$2,000,000 in cash and/or principal amount of bonds of the Sixteenth Series, that the Company elects to add to the Special Redemption Fund for such calendar year. At the option of the Company, Optional Special Redemption

Fund Payments may (at any time after they are made) be applied (to the extent not theretofore so applied) in whole or in part from time to time, to reduce Mandatory Special Redemption Fund Requirements for subsequent years upon written notice to the Corporate Trustee.

The Company, at its option (as evidenced by a written order of its Vice President-Finance, its Treasurer or an Assistant Treasurer delivered to the Corporate Trustee directing such credit), shall be credited against any of the requirements of this Section with the aggregate principal amount of any bond(s) of the Sixteenth Series (a) which are not then being and have not theretofore been delivered to meet the requirements of this Section, (b) which have been purchased or redeemed and cancelled or for the purchase or redemption of which moneys in the necessary amount shall be held by the Corporate Trustee with irrevocable direction so to apply the same (provided that any such purchase or redemption shall have been, or is to be, effected otherwise than with cash deposited under the provisions of Section 64 of the Mortgage or with cash which, after giving effect to the provisions of Section 61 of the Mortgage, is then deemed to be or to have been Funded Cash, and, in the case of redemption, the notice required therefor shall have been given or have been provided for to the satisfaction of the Corporate Trustee) and (c) which have not theretofore been made the basis under any of the provisions of the Mortgage for the authentication and delivery of bonds, the withdrawal of cash or the release of property or the basis of a credit under the provisions of this Section (subject to the provisions of Sections 59 and 61 of the Mortgage, permitting the revocation of the waiver of the right to the authentication and delivery of bonds).

Except as hereinafter specifically prohibited by this paragraph, and notwithstanding any other provisions of this Fifteenth Supplemental Indenture, (i) the Company shall be permitted from time to time to anticipate in whole or in part the Total Special Redemption Fund Requirement becoming due on July 1 of the then current year or the mandatory sinking fund requirement becoming due on July 1 of any subsequent year or years, by depositing cash and/or a principal amount of bonds of the Sixteenth Series with the Corporate Trustee in full satisfaction or in partial satisfaction of the requirements of this Section, and (ii) any cash deposited under this Section, whether in full satisfaction or in partial satisfaction of the requirements of this Section and whether becoming due on July 1 of the then current year or of a subsequent year, shall be applied by the Corporate Trustee

from time to time, as the Company may request, to the purchase of bonds of the Sixteenth Series, at public or private sale, provided, however, that the Corporate Trustee, before making any purchases of bonds as so provided shall by mail notify all registered owners of bonds of the Sixteenth Series of the amount of cash to be applied to the purchase of such bonds and request tenders of bonds by a specified date, and on or after such date the Corporate Trustee, to the extent, as nearly as is possible, of the cash so to be applied, shall purchase the bonds so tendered at the price or prices (including accrued interest and brokerage, if any) most favorable to the Company but not exceeding the cost of redeeming such bonds on a date forty (40) days after the date of such purchase (including premium, if any, and accrued interest from the interest date next preceding the date of purchase to such redemption date in such cost), and, if more bonds are offered at any specified price than there is cash then available to purchase the same, the Corporate Trustee shall prorate its purchases of bonds at such price as nearly as may be practicable between the owners of bonds offered at such price in proportion to the principal amounts of bonds of the Sixteenth Series registered in the names of the owners offering bonds at such price, or to the redemption of bonds of the Sixteenth Series; provided, however, that if moneys in excess of the sum of Fifty Thousand Dollars (\$50,000) deposited with the Corporate Trustee pursuant to this Section (except moneys which theretofore have been set aside to be applied to the purchase of bonds so tendered or to the redemption of bonds called for redemption) shall have remained on deposit for a period of six calendar months, such moneys so remaining on deposit shall promptly thereafter be applied by the Corporate Trustee to the redemption of bonds of the Sixteenth Series; and provided further that, unless consented to by the holders of a majority in principal amount of bonds of the Sixteenth Series Outstanding at the time of such consent, the Company may not deposit cash prior to July 1, 1991 in anticipation of the requirements of this Section, if the cash so deposited represents a part of a refunding operation involving, directly or indirectly, the incurring of indebtedness by the Company having a cost (calculated in accordance with acceptable financial practice) lower than 9.531% per annum.

Any cash deposited under the provisions of this Section shall not be deemed to be Funded Cash; any bonds of the Sixteenth Series delivered to the Corporate Trustee pursuant to the provisions of this Section shall not be deemed to have been retired by the use of Funded Cash; and with respect to all credits taken under this Section on

the basis of the purchase or redemption of bonds of the Sixteenth Series, it shall not be deemed that a credit has been taken under the Mortgage on the basis thereof.

Any bonds issued under the Mortgage, delivered to, deposited with or purchased or redeemed by, the Corporate Trustee pursuant to the provisions of this Section, shall forthwith be cancelled by the Corporate Trustee.

The Company shall forthwith from time to time on demand of the Corporate Trustee make further payments pursuant to the provisions of this Section on account of accrued interest, brokerage and premium, if any, on bonds of the Sixteenth Series purchased or redeemed or then to be purchased or redeemed but not in excess of

(AA) the aggregate cost for principal, interest, brokerage and premium, if any, on all bonds theretofore, or then to be, purchased and/or redeemed pursuant to the provisions of this Section

after deducting therefrom

(BB) the aggregate principal amount of all bonds theretofore, and of all bonds then to be, purchased and/or redeemed pursuant to the provisions of this Section plus the aggregate of all such further payments theretofore made pursuant to the provisions of this Section on account of accrued interest, brokerage and/or premium, if any.

ARTICLE III.

Miscellaneous Provisions.

SECTION 3.01. Subject to the amendments provided for in this Fifteenth Supplemental Indenture, the terms defined in the Mortgage, as heretofore supplemented, shall, for all purposes of this Fifteenth Supplemental Indenture, have the meanings specified in the Mortgage, as heretofore supplemented.

SECTION 3.02. The Trustees hereby accept the trusts hereby declared, provided, created or supplemented, and agree to perform the same upon the terms and conditions herein and in the Mortgage, as heretofore supplemented, set forth, including the following:

The Trustees shall not be responsible in any manner whatsoever for or in respect of the validity or sufficiency of this Fifteenth Supplemental Indenture or for or in respect of the recitals contained herein, all of which recitals are made by the Company solely. In general each and every term and condition contained in Article XVII of the Mortgage shall apply to and form part of this Fifteenth Supplemental Indenture with the same force and effect as if the same were herein set forth in full, with such omissions, variations and insertions, if any, as may be appropriate to make the same conform to the provisions of the Fifteenth Supplemental Indenture.

SECTION 3.03. Whenever in this Fifteenth Supplemental Indenture any of the parties hereto is named or referred to, this shall, subject to the provisions of Articles XVI and XVII of the Mortgage, be deemed to include the successors or assigns of such party, and all the covenants and agreements in this Fifteenth Supplemental Indenture contained by or on behalf of the Company or by or on behalf of the Trustees shall bind and inure to the benefit of the respective successors and assigns of such parties whether so expressed or not.

SECTION 3.04. Nothing in this Fifteenth Supplemental Indenture, expressed or implied, is intended, or shall be construed, to confer upon, or to give to, any person, firm or corporation, other than the parties hereto and the holders of the bonds and coupons outstanding under the Mortgage, any right, remedy, or claim under or by reason of this Fifteenth Supplemental Indenture or any covenant, condition, stipulation, promise or agreement hereof, and all the covenants, conditions, stipulations, promises and agreements by or on behalf of the Company as set forth in this Fifteenth Supplemental Indenture shall be for the sole and exclusive benefit of the parties hereto, and of the holders of the bonds and of the coupons outstanding under the Mortgage.

SECTION 3.05. This Fifteenth Supplemental Indenture has been executed in several identical counterparts, each of which shall be an original and all of which shall constitute but one and the same instrument.

IN WITNESS WHEREOF, Northwest Natural Gas Company, party hereto of the first part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by its President or one of its Vice Presidents, and its corporate seal to be attested by its Secretary or one of its Assistant Secretaries for and in its behalf on the 26th day of June, 1986, as of July

1, 1986, in Portland, Oregon; Bankers Trust Company, one of the parties hereto of the second part, has caused its corporate name to be hereunto affixed, and this instrument to be signed and sealed by one of its Vice Presidents or one of its Assistant Vice Presidents and its corporate seal to be attested by one of its Assistant Secretaries; and Stanley Burg, one of the parties hereto of the second part, has hereunto set his hand and affixed his seal, all in The City of New York, on the 27th day of June, 1986, as of July 1, 1986.

NORTHWEST NATURAL GAS COMPANY

[CORPORATE SEAL]

By W. E. Radford
Vice President, Finance
and Treasurer

Attest:

C. J. Rue
Secretary

Executed, sealed and delivered
by NORTHWEST NATURAL GAS COM-
PANY in the presence of:

Virginia M. Vance

Leslie K. Alldrin

BANKERS TRUST COMPANY, as Trustee,

[CORPORATE SEAL]

By Joan M. Morgan
Vice President

Attest:

Louise A. Buckley
Assistant Secretary

Stanley Burg
STANLEY BURG, as Trustee

Executed, sealed and
delivered by BANKERS TRUST
COMPANY and STANLEY BURG
in the presence of:

Shirley R. West

Andrew A. Steckler

STATE OF OREGON)
 : ss.:
COUNTY OF MULTNOMAH)

June 26, A.D. 1986.

Before me personally appeared W. E. RADFORD, who, being duly sworn, did say that he is Vice President, Finance and Treasurer of NORTHWEST NATURAL GAS COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and he acknowledged said instrument to be its voluntary act and deed.

On this 26th day of June 1986, before me personally appeared W. E. RADFORD, to me known to be Vice President, Finance and Treasurer of NORTHWEST NATURAL GAS COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that he was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

[NOTARIAL SEAL]

Barbara Trautman
Barbara Trautman
Notary Public, State of Oregon
My Commission Expires March 30, 1989

STATE OF NEW YORK)
 : ss.:
COUNTY OF NEW YORK)

June 27, A.D. 1986.

Before me personally appeared JOAN M. MORGAN, who, being duly sworn, did say that she is a Vice President of BANKERS TRUST COMPANY and that the seal affixed to the foregoing instrument is the corporate seal of said Corporation and that said instrument was signed and sealed in behalf of said Corporation by authority of its Board of Directors; and she acknowledged said instrument to be its voluntary act and deed.

On this 27th day of June 1986, before me personally appeared JOAN M. MORGAN, to me known to be a Vice President of BANKERS TRUST COMPANY, one of the corporations that executed the within and foregoing instrument, and acknowledged said instrument to be the free and voluntary act and deed of said Corporation, for the uses and purposes therein mentioned, and on oath stated that she was authorized to execute said instrument and that the seal affixed is the corporate seal of said Corporation.

IN WITNESS WHEREOF I have hereunto set my hand and affixed my official seal the day and year first above written.

[NOTARIAL SEAL]

Valerie Ann Hedberg
Valerie Ann Hedberg
Notary Public, State of New York
No. 31-4836412
Qualified in New York County
Commission Expires March 31, 1987

STATE OF NEW YORK)
 : ss.:
COUNTY OF NEW YORK)

June 27, A.D. 1986.

Before me personally appeared the above-named STANLEY BURG and acknowledged the foregoing instrument to be his voluntary act and deed.

On this day personally appeared before me STANLEY BURG to me known to be the individual described in and who executed the within and foregoing instrument, and acknowledged that he signed the same as his free and voluntary act and deed, for the uses and purposes therein mentioned.

Given under my hand and official seal this 27th day of June, 1986.

[NOTARIAL SEAL]

Valerie Ann Hedberg
Valerie Ann Hedberg
Notary Public, State of New York
No. 31-4836412
Qualified in New York County
Commission Expires March 31, 1987

SUMMARY OF RECORDING DATA

- IN THE STATE OF OREGON

Real Property Mortgage Records

<u>Counterpart No.</u>	<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
11	Benton	July 3, 1986	M-78662-86	-
12	Clackamas	July 7, 1986	86 24733	-
13	Clatsop	July 3, 1986	658	288
14	Columbia	July 3, 1986	197	114
15	Coos	July 7, 1986	86-3-2413	-
16	Douglas	July 3, 1986	951	551
17	Hood River	July 3, 1986	861198	-
18	Lane	July 21, 1986	1411R (#8627177)	-
19	Lincoln	July 7, 1986	172	809
20	Linn	July 3, 1986	414	743
21	Marion	July 3, 1986	472	468
22	Multnomah	July 3, 1986	1918	305
23	Polk	July 3, 1986	195	722
24	Tillamook	July 3, 1986	304	5
25	Wasco	July 3, 1986	861538	-
26	Washington	July 3, 1986	86028953	-
27	Yamhill	July 7, 1986	204	1510

Filed as a Financing Statement

<u>Counterpart No.</u>	<u>Office</u>	<u>Date Filed for Record</u>	<u>File No.</u>
9	Secretary of State	July 3, 1986	K 52983

IN THE STATE OF WASHINGTON

Real Property Mortgage Records

<u>Counterpart No.</u>	<u>County</u>	<u>Date Recorded</u>	<u>Book, Film or Reel</u>	<u>Page</u>
29	Clark	July 3, 1986	399	1
30	Klickitat	July 3, 1986	138	112
31	Skamania	July 3, 1986	101	752

Filed as a Financing Statement

<u>Counterpart No.</u>	<u>Office</u>	<u>Date Filed for Record</u>	<u>File No.</u>
28	Secretary of State	July 3, 1986	86-188-0036

NORTHWEST NATURAL GAS COMPANY

AND

Centerre Trust Company of St. Louis,
Trustee

INDENTURE

Dated as of January 15, 1987

\$15,000,000

7-1/4% Convertible Debentures
due March 1, 2012

CROSS-REFERENCE TABLE

<u>TIA</u> <u>Section</u>	<u>Indenture</u> <u>Section</u>
310 (a)(1)	8.10
(a)(2)	8.10
(a)(3)	N.A.
(a)(4)	N.A.
(b)	8.08; 8.10; 12.02
(c)	N.A.
311 (a)	8.11
(b)	8.11
(c)	N.A.
312 (a)	2.05
(b)	12.03
(c)	12.03
313 (a)	8.06
(b)(1)	N.A.
(b)(2)	8.06
(c)	12.02
(d)	8.06
314 (a)	5.02; 12.02
(b)	N.A.
(c)(1)	12.04
(c)(2)	12.04
(c)(3)	N.A.
(d)	N.A.
(e)	12.05
(f)	N.A.
315 (a)	8.01(b)
(b)	8.05; 12.02
(c)	8.01(a)
(d)	8.01(c)
(e)	7.11
316 (a)(last sentence)	2.09
(a)(1)(A)	7.05
(a)(1)(B)	7.04
(a)(2)	N.A.
(b)	7.07

<u>TIA</u> <u>Section</u>	<u>Indenture</u> <u>Section</u>
317 (a)(1)	7.08
(a)(2)	7.09
(b)	2.04
318 (a)	12.01

N.A. means Not Applicable.

NOTE: This Cross-Reference Table shall not, for any purpose, be deemed to be a part of the Indenture.

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INDENTURE dated as of January 15, 1987, between NORTHWEST NATURAL GAS COMPANY, an Oregon corporation ("Corporation"), and CENTERRE TRUST COMPANY OF ST. LOUIS, a Missouri corporation ("Trustee").

Each party agrees as follows for the benefit of the other party and for the equal and ratable benefit of the Holders of the Corporation's 7-1/4% Convertible Debentures due 2012 ("Debentures"):

ARTICLE 1 DEFINITIONS AND INCORPORATION BY REFERENCE

Section 1.01. Definitions.

"Affiliate" means any person directly or indirectly controlling or controlled by or under direct or indirect common control with the Corporation.

"Agent" means any Registrar, Paying Agent, Conversion Agent, or co-registrar or agent for service of notices and demands. See Section 2.03.

"Board of Directors" means the Board of Directors of the Corporation or any authorized committee of the Board.

"Board Resolution" means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Corporation to have been duly adopted by the Board of Directors and to be in full force and effect.

"Capital Stock" means any and all shares, interests, participations or other equivalents (however designated) of corporate stock.

"Common Stock" means the common stock, \$3 1/6 par value, of the Corporation as the same exists at the date of this Indenture or as such stock shall be constituted from time to time.

"Corporate Trust Office" means the office of the Trustee located in St. Louis, Missouri, at which at any time its corporate trust business shall be principally administered, which office at the date of execution of this Indenture is located at 510 Locust Street, St. Louis, Missouri 63101, Attention: Corporate Trust Division.

"Corporation" means the party named as such above until a successor replaces it pursuant to the applicable provisions of the Indenture and thereafter means the successor.

"Debenture" means any one of the Debentures described above issued under this Indenture.

"Default" means any event which is, or after notice or passage of time would be, an Event of Default.

"Exchange Act" means the Securities Exchange Act of 1934, as from time to time amended.

"Holder" or "Debentureholder" means a person in whose name a Debenture is registered.

"Indenture" means this Indenture as amended from time to time.

"Officers" means the President, any Vice President, the Treasurer, the Controller, the Secretary, any Assistant Treasurer or any Assistant Secretary of the Corporation.

"Officers' Certificate" means a certificate signed by two Officers, one of whom must be President or a Vice President of the Corporation. See Sections 12.04 and 12.05.

"Opinion of Counsel" means a written opinion from legal counsel who may be an employee of or counsel to the Corporation or the Trustee and who is acceptable to the Trustee. See Sections 12.04 and 12.05.

"Person" means any individual, corporation, partnership, joint venture, association, joint-stock company, trust, unincorporated organization or government or any agency or political subdivision thereof.

"Principal" of the Debenture means the principal amount of the Debenture plus the premium, if any, on the Debenture.

"Qualified Institution" means a member firm of a registered national securities exchange or of the National Association of Securities Dealers, Inc., or a commercial bank or trust company located in the United States.

"Quoted Price" means the last transaction price of the Common Stock as reported on a national securities exchange or a national interdealer automated securities quotation system.

"Redemption Date" when used with respect to any Debenture to be redeemed means the date fixed for such redemption pursuant to this Indenture.

"Redemption Price" when used with respect to any Debenture to be redeemed means the price at which it is to be redeemed pursuant to this Indenture and the Debenture.

"SEC" means the Securities and Exchange Commission.

"Subsidiary" means a corporation at least the majority of whose voting stock is owned by the Corporation or a Subsidiary.

"TIA" means the Trust Indenture Act of 1939 (15 U.S.C. §§77aaa-77bbb) as in effect on the date shown above except as provided in Section 10.03.

"Trustee" means the party named as such above until a successor replaces it pursuant to the applicable provisions of the Indenture and thereafter means the successor.

"Trust Officer" means the Chairman of the Board, the President or any other officer or assistant officer of the Trustee assigned by the Trustee to administer its corporate trust matters.

"United States" means the United States of America.

Section 1.02. Other Definitions.

<u>Term</u>	<u>Defined in Section</u>
"Bankruptcy Law"	7.01
"Called Debenture"	3.08
"Conversion Agent"	2.03
"Conversion Date"	11.02
"Conversion Price"	11.01
"Custodian"	7.01
"Defaulted Interest"	2.12
"Event of Default"	7.01
"Legal Holiday"	12.07
"Paying Agent"	2.03
"Registrar"	2.03
"U.S. Government Obligations"	9.01

Section 1.03. Incorporation by Reference of Trust Indenture Act.

Whenever this Indenture refers to a provision of the TIA, the provision is incorporated by reference in and made a part of this Indenture.

The following TIA terms used in this Indenture have the following meanings:

"indenture securities" means the Debentures.

"indenture securityholder" means a Debentureholder.

"indenture to be qualified" means this Indenture.

"indenture trustee" or "institutional trustee" means the Trustee.

"obligor" on the indenture securities means the Corporation.

All other terms used in this Indenture that are defined by the TIA, defined by TIA reference to another statute or defined by SEC rule under the TIA have the meanings assigned to them.

Section 1.04. Rules of Construction.

Unless the context otherwise requires:

- (1) a term has the meaning assigned to it;
- (2) an accounting term not otherwise defined has the meaning assigned to it in accordance with generally accepted accounting principles;
- (3) "or" is not exclusive;
- (4) words in the singular include the plural, and in the plural include the singular;
- (5) provisions apply to successive events and transactions; and
- (6) "Section" shall refer to a Section of this Indenture.

ARTICLE 2 THE DEBENTURES

Section 2.01. Creation of the Debentures.

There is hereby authorized and created under this Indenture an issue of Debentures, entitled to the benefit of this Indenture, limited in aggregate principal amount to \$15,000,000. The Debentures shall be designated by the title "7-1/4% Convertible Debentures Due 2012." The Debentures shall bear interest, computed on the basis of a 360-day year consisting of twelve 30-day months, from the date of their original issuance, payable semi-annually on March 1 and September 1 of

each year commencing September 1, 1987. The Debentures shall mature, subject to prior redemption, upon the terms and conditions hereinafter set forth, on March 1, 2012.

The Debentures issued hereunder shall be substantially in the form of Exhibit A, which is part of this Indenture. The Debentures may have notations, legends or endorsements required by law, stock exchange rule or usage. Each Debenture shall be dated the date of its authentication.

Section 2.02. Execution and Authentication.

Two Officers shall sign the Debentures for the Corporation by manual or facsimile signature. The Corporation's seal shall be reproduced on the Debenture.

If an Officer whose signature is on a Debenture no longer holds that office at the time the Debenture is authenticated, the Debenture shall nevertheless be valid.

A Debenture shall not be valid until authenticated by the manual signature of the Trustee. The signature shall be conclusive evidence that the Debenture has been authenticated under this Indenture.

The Trustee shall authenticate Debentures for original issue up to the aggregate principal amount of \$15,000,000 upon a written order of the Corporation signed by two Officers. The aggregate principal amount of Debentures outstanding at any time may not exceed that amount except as provided in Section 2.07.

The Trustee may appoint an authenticating agent acceptable to the Corporation to authenticate Debentures. An authenticating agent may authenticate Debentures whenever the Trustee may do so. Each reference in this Indenture to authentication by the Trustee includes authentication by such agent. An authenticating agent has the same rights as an Agent to deal with the Corporation or an Affiliate.

Section 2.03. Registrar, Paying Agent and Conversion Agent.

The Corporation shall maintain an office or agency where Debentures may be presented for registration of transfer or for exchange ("Registrar"), an office or agency where Debentures may be presented for payment ("Paying Agent"), an office or agency where Debentures may be presented for conversion ("Conversion Agent") and an office or agency where notices and demands to or upon the Corporation in respect of the Debentures and this Indenture may be served. The Registrar shall keep a register of the Debentures and of their transfer and exchange. The Corporation may appoint one or more co-registrars, one or more additional paying agents and one or more additional

conversion agents. The Corporation or any Subsidiary may act as Registrar, Paying Agent or Conversion Agent. The term "Paying Agent" includes any additional paying agent and the term "Conversion Agent" includes any additional conversion agent.

The Corporation shall notify the Trustee of the name and address of any Agent not a party to this Indenture. If the Corporation fails to maintain a Registrar, Paying Agent, Conversion Agent or agent for service of notices and demands or fails to give the foregoing notice, the Trustee shall act as such Agent.

The Corporation initially appoints the Centerre Trust Company of St. Louis as Registrar, Paying Agent, Conversion Agent and agent for service of notices and demands.

Section 2.04. Paying Agent to Hold Money in Trust.

The Corporation shall require each Paying Agent other than the Trustee to agree in writing that the Paying Agent will hold in trust for the benefit of Debentureholders or the Trustee all money held by the Paying Agent for the payment of principal or interest on the Debentures, and will notify the Trustee of any Default by the Corporation in making any such payment. While any such Default continues, the Trustee may require a Paying Agent to pay all money held by it to the Trustee. The Corporation at any time may require a Paying Agent to pay all money held by it to the Trustee. Upon payment over to the Trustee, the Paying Agent shall have no further liability for the money. If the Corporation (or any Subsidiary) acts as Paying Agent, it shall segregate and hold as a separate trust fund all money held by it as Paying Agent.

Section 2.05. Debentureholder Lists.

The Trustee shall preserve in as current a form as is reasonably practicable the most recent list available to it of the names and addresses of Debentureholders. If the Trustee is not the Registrar, the Corporation shall furnish to the Trustee on or before each interest payment date and at such other times as the Trustee may request in writing a list of the names and addresses of Debentureholders in such form and as of such date as the Trustee may reasonably require.

Section 2.06. Transfer and Exchange.

When Debentures are presented to the Registrar or a co-registrar with a request to register the transfer or to exchange them for an equal principal amount of Debentures of other denominations, the Registrar shall register the transfer or make the exchange, provided that every Debenture presented or surrendered for registration of transfer or exchange shall

be duly endorsed or be accompanied by a written instrument of transfer in form satisfactory to the Corporation and the Registrar duly executed by the Holder thereof or by his attorney duly authorized in writing. To permit registrations of transfer and exchanges, the Trustee shall authenticate Debentures at the Registrar's request. No service charge shall be made for any registration of transfer or exchange of Debentures, but the Corporation may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto, other than exchanges pursuant to Sections 2.10, 3.07, 4.02, 10.05 or 11.02.

Section 2.07. Replacement Debentures.

If the Holder of a Debenture claims that the Debenture has been lost, destroyed or wrongfully taken, the Corporation shall issue and the Trustee shall authenticate a replacement Debenture if the Trustee's requirements are met. If required by the Trustee or the Corporation, an indemnity bond must be obtained and be sufficient in the judgment of both to protect the Corporation, the Trustee, any Agent or any authenticating agent from any loss which any of them may suffer if a Debenture is replaced. The Corporation may charge for its expenses in replacing a Debenture.

Every replacement Debenture is an additional obligation of the Corporation.

Section 2.08. Outstanding Debentures.

The Debentures outstanding at any time are all the Debentures authenticated by the Trustee except for those cancelled by it, those delivered to it for cancellation, and those described in this Section as not outstanding.

If a Debenture is replaced pursuant to Section 2.07, it ceases to be outstanding unless the Trustee receives proof satisfactory to it that the replaced Debenture is held by a bona fide purchaser.

If Debentures are considered paid under Section 5.01, they cease to be outstanding and interest on them ceases to accrue.

A Debenture does not cease to be outstanding because the Corporation or an Affiliate holds the Debenture.

Section 2.09. Treasury Debentures.

In determining whether the Holders of the required principal amount of Debentures have concurred in any direction, waiver or consent, Debentures owned by the Corporation or an

Affiliate shall be disregarded, except for purposes of determining whether the Trustee shall be protected in relying on any such direction, waiver or consent. Only Debentures which the Trustee knows are so owned shall be disregarded.

Section 2.10. Temporary Debentures.

Until definitive Debentures are ready for delivery, the Corporation may prepare and the Trustee shall authenticate temporary Debentures. Temporary Debentures shall be substantially in the form of definitive Debentures but may have variations that the Corporation considers appropriate for temporary Debentures. Without unreasonable delay, the Corporation shall prepare and the Trustee shall authenticate definitive Debentures in exchange for temporary Debentures.

Section 2.11. Cancellation.

The Corporation at any time may deliver Debentures to the Trustee for cancellation. The Registrar, the Paying Agent and the Conversion Agent shall forward to the Trustee any Debentures surrendered to them for registration of transfer, exchange, payment or conversion. The Trustee shall cancel all Debentures surrendered for registration of transfer, exchange, payment, conversion or cancellation and shall dispose of cancelled Debentures as the Corporation directs. The Corporation may not issue new Debentures to replace Debentures that it has paid or delivered to the Trustee for cancellation or that any Debentureholder has converted pursuant to Article 11.

Section 2.12. Defaulted Interest.

Any interest on any Debenture which is payable, but is not punctually paid, on any interest payment date (herein called "Defaulted Interest") shall forthwith cease to be payable to the Debentureholder on the relevant record date solely by virtue of such Debentureholder having been a Debentureholder; and such Defaulted Interest may be paid by the Corporation, at its election in each case, as provided in subsection (a) or (b) below:

(a) The Corporation may elect to make payment of any Defaulted Interest on the Debentures to the persons in whose names such Debentures (or their respective predecessor Debentures) are registered at the close of business on a special record date for the payment of such Defaulted Interest, which shall be fixed in the following manner. The Corporation shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each Debenture and the date of the proposed payment (which date shall be such as will enable the Corporation to comply with the next sentence hereof), and at the same time the Corporation shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be

paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the persons entitled to such Defaulted Interest as in this subsection provided. Thereupon the Corporation shall fix a special record date for the payment of such Defaulted Interest which shall not be more than 15 nor less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Corporation, at its expense, shall cause notice of the proposed payment of such Defaulted Interest and the special record date therefor to be mailed, first-class postage prepaid, to each Holder of a Debenture at his address as it appears in the Debenture register not less than 10 days prior to such special record date. Notice of the proposed payment of such Defaulted Interest and the special record date therefore having been mailed as aforesaid, such Defaulted Interest shall be paid to the persons in whose names the Debentures (or their respective predecessor Debentures) are registered on such special record date and shall no longer be payable pursuant to the following subsection (b).

(b) The Corporation may make payment of any Defaulted Interest on the Debentures in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Debentures may be listed and upon such notice as may be required by such exchange if, after notice given by the Corporation to the Trustee of the proposed payment pursuant to this subsection, such payment shall be deemed practicable by the Trustee.

Subject to the foregoing provisions of this Section, each Debenture delivered under this Indenture upon transfer of or in exchange for or in lieu of any other Debenture shall carry all the rights to interest accrued and unpaid, and to accrue, which were carried by such other Debenture and each such Debenture shall bear interest from such date that neither gain nor loss in interest shall result from such transfer, exchange or substitution.

ARTICLE 3 REDEMPTION OF DEBENTURES AT CORPORATION'S OPTION

Section 3.01. Redemption Right at Corporation's Option.

The Corporation has the right to redeem the Debentures at its sole option, in whole or in part, at any time and from time to time on or after March 1, 1988, at the following Redemption Prices (expressed in percentages of principal amount of the Debentures), plus unpaid accrued interest to the Redemption Date, subject to the terms and conditions set forth in this Article 3.

If redeemed during the 12-month period beginning
March 1:

<u>Year</u>	<u>Percentage</u>	<u>Year</u>	<u>Percentage</u>
1988	106.0	1995	102.5
1989	105.5	1996	102.0
1990	105.0	1997	101.5
1991	104.5	1998	101.0
1992	104.0	1999	100.5
1993	103.5	2000 until	100.0
1994	103.0	stated maturity	

The election of the Corporation to redeem any Debenture shall be evidenced by a Board Resolution.

Section 3.02. Notices to Trustee.

If the Corporation wishes to redeem Debentures pursuant to this Article, it shall notify the Trustee of the Redemption Date and the principal amount of Debentures to be redeemed. The Corporation shall give the notice provided for in this Section not less than 45 days prior to the Redemption Date.

Section 3.03. Selection of Debentures to be Redeemed.

If less than all the Debentures are to be redeemed, the Trustee shall select the Debentures to be redeemed by lot. The Trustee shall make the selection not more than 60 days before the Redemption Date from Debentures then outstanding that have not been previously called for redemption. The Trustee may select for redemption portions of the principal of Debentures that have denominations larger than \$1,000. Debentures and portions of Debentures that the Trustee selects shall be in amounts of \$1,000 or integral multiples of \$1,000. Provisions of this Indenture that apply to Debentures called for redemption also apply to portions of Debentures called for redemption.

Section 3.04. Notice of Redemption.

At least 30 days but not more than 60 days before a Redemption Date, the Corporation shall mail notice of redemption to each Holder whose Debentures are to be redeemed.

The notice shall state:

- (1) the Redemption Date;
- (2) the Redemption Price;
- (3) the Conversion Price;

- (4) the name and address of the Paying Agent and Conversion Agent;
- (5) that Debentures called for redemption may be converted at any time prior to the close of business on the Redemption Date;
- (6) that Holders who wish to convert must satisfy the requirements of Section 11.02 hereof;
- (7) that Debentures called for redemption must be surrendered to the Paying Agent to collect the Redemption Price;
- (8) that interest on Debentures called for redemption ceases to accrue on and after the Redemption Date (unless the Corporation shall default in the payment of the Redemption Price); and
- (9) if less than all of the Debentures outstanding are to be redeemed, the identification (and, in the case of partial redemption, the respective principal amounts) of the Debentures to be redeemed.

At the Corporation's request, the Trustee shall give notice of redemption in the Corporation's name and at its expense.

Section 3.05. Effect of Notice of Redemption.

Once notice of redemption is mailed, Debentures called for redemption become due and payable on the Redemption Date at the Redemption Price.

Section 3.06. Deposit of Redemption Price.

On or before the Redemption Date, the Corporation shall deposit with the Paying Agent cash sufficient to pay the Redemption Price and accrued interest on all Debentures to be redeemed. The Paying Agent shall return to the Corporation any money not required due to the conversion of Debentures called for redemption.

Section 3.07. Debentures Redeemed in Part.

Upon surrender of a Debenture that is redeemed in part, the Trustee shall authenticate for the Holder a new Debenture equal in principal amount to the unredeemed portion of the Debenture surrendered.

Section 3.08. Conversion Arrangements on Call for Redemption.

Notwithstanding anything to the contrary contained in this Indenture, in connection with any redemption of Debentures pursuant to this Article 3, the Corporation, by an agreement with one or more investment bankers or other purchasers, may arrange for such purchasers to purchase all Debentures called for redemption (the "Called Debentures") which are either (i) surrendered for redemption or (ii) not duly surrendered for redemption or conversion prior to the close of business on the Redemption Date, and to convert the same into shares of Common Stock, by the purchasers' depositing with the Trustee (acting as Paying Agent with respect to the deposit of such amount and as Conversion Agent with respect to the conversion of such Called Debentures), in trust for the Holders of the Called Debentures, on or prior to the Redemption Date in the manner agreed to by the Corporation and such purchasers, an amount sufficient to pay the Redemption Price, payable by the Corporation on redemption of such Called Debentures. In connection with any such arrangement for purchase and conversion, the Trustee as Paying Agent shall pay on or after the Redemption Date such amounts so deposited by the purchasers in exchange for Called Debentures surrendered for redemption prior to the close of business on the Redemption Date and for all Called Debentures surrendered after such Redemption Date. Notwithstanding anything to the contrary contained in this Article 3, the obligation of the Corporation to pay the Redemption Price of such Called Debentures shall be satisfied and discharged to the extent such amount is so paid by such purchasers, provided, however, that nothing in this Section 3.08 shall in any way relieve the Corporation of the obligation to pay such Redemption Price on all Called Debentures to the extent such amount is not so paid by said purchasers. For all purposes of this Indenture, any Called Debentures surrendered by the Holders for redemption, and any Called Debentures not duly surrendered for redemption or conversion prior to the close of business on the Redemption Date, shall be deemed acquired by such purchasers from such Holders and surrendered by such purchasers for conversion and shall in all respects be deemed to have been converted, all as of immediately prior to the close of business on the Redemption Date, subject to the deposit by the purchasers of the above amount as aforesaid. Nothing in this Section 3.08 shall in any way limit the right of any Holder of a Debenture to convert such Debenture pursuant to the terms of this Indenture any time prior to the close of business on the Redemption Date.

ARTICLE 4 REDEMPTION OF DEBENTURES UPON DEATH OF
THE DEBENTUREHOLDER OR BENEFICIAL OWNER

Section 4.01. Redemption Right.

The Corporation will redeem a Debenture, or a portion of a Debenture (in the principal amount of \$1,000 or integral multiples thereof) within 60 days following receipt by the Trustee of a request in accordance with Section 4.02 therefor from a Qualified Institution holding such Debenture for a deceased beneficial owner or from a deceased Debentureholder's personal representative, or surviving joint tenant, tenant by the entirety or tenant in common, subject to the limitations that the Corporation will not be obligated to redeem during any twelve-month period ending on any March 1: (i) the portion of a Debenture or Debentures presented on behalf of a deceased beneficial owner or deceased Debentureholder exceeding an aggregate principal amount of \$25,000 or (ii) Debentures presented on behalf of all deceased beneficial owners and deceased Debentureholders exceeding \$600,000 in aggregate principal amount. If the Corporation, although not obligated to do so, chooses to redeem Debentures of any deceased beneficial owner or deceased Debentureholder in any such twelve-month period in excess of the \$25,000 limitation, such redemption, to the extent that it exceeds the \$25,000 limitation for any deceased beneficial owner or deceased Debentureholder, shall not be included in the computation of the \$600,000 limitation for such period or any succeeding period.

Section 4.02. Redemption Procedure.

Debentures will be redeemed in the order of their receipt by the Trustee, except as hereinafter provided. Debentures not redeemed in any such twelve-month period because of the \$25,000 or \$600,000 limitations will be held for redemption during the following twelve-month period(s) until redeemed unless sooner withdrawn by the person presenting the Debenture for redemption.

Debentures may be presented on behalf of a deceased beneficial owner or a deceased Debentureholder for redemption by delivering to the Trustee: (1) a written request for redemption signed by an authorized officer of a Qualified Institution or by the deceased Debentureholder's personal representative or surviving joint tenant, tenant by the entirety, or tenant in common, (2) the Debenture(s) to be redeemed and (3) appropriate evidence of death of the Debentureholder and appropriate evidence of authority in the case of a request by a personal representative. No particular forms of request for redemption or evidence of death or authority to request redemption are required but each must be in a form satisfactory to the Trustee. The price to be paid by the Corporation for all Debentures presented to it pursuant to the

provisions described in this Section is 100% of the principal amount thereof plus unpaid accrued interest to the date of payment. Any acquisition of Debentures by the Corporation or its Subsidiaries other than by redemption upon the death of a Debentureholder pursuant to this Section shall not be included in the computation of either the \$25,000 or \$600,000 limitations for any period.

For purposes of this Section 4.02, a Debenture held in joint tenancy, tenancy by the entirety, or tenancy in common will be deemed to be held by a single Debentureholder and the death of any joint tenant, tenant by the entirety or tenant in common will be deemed the death of a Debentureholder. The death of a person, who, during his lifetime, was entitled to substantially all of the beneficial ownership interest of a Debenture will be deemed the death of the Debentureholder, regardless of the registered Debentureholder, if such beneficial interest can be established to the satisfaction of the Trustee. Such beneficial interest shall be deemed to exist in typical cases of street name or nominee ownership, ownership under the Uniform Gifts to Minors Act, community property or other joint ownership arrangements between a husband and wife (including individual retirement account or Keogh [H.R. 10] plans maintained solely by or for the decedent, or by or for the decedent and his spouse), and trust and certain other arrangements where one person has substantially all of the beneficial ownership interest in the Debenture during his lifetime. Beneficial interest shall include the power to sell, transfer or otherwise dispose of a Debenture and the right to receive the proceeds therefrom, as well as interest and principal payable with respect thereto.

In the case of a Debenture presented for redemption by a Qualified Institution on behalf of a deceased beneficial owner, the \$25,000 limitation shall apply to each such beneficial owner and the death of such beneficial owner shall entitle a Qualified Institution to seek redemption of such Debentures as if the deceased beneficial owner were the registered Debentureholder. A Qualified Institution, in its request for redemption on behalf of a deceased beneficial owner, must submit evidence, satisfactory to the Trustee, that it holds the Debenture on behalf of such beneficial owner and must certify that the aggregate requests for redemption tendered by such Qualified Institution on behalf of each such beneficial owner in any such twelve-month period does not exceed \$25,000. In addition, any request for redemption made by a Qualified Institution on behalf of a deceased beneficial owner must be delivered to the Trustee by registered mail, return receipt requested.

In the case of any Debenture which is presented for redemption in part only, upon such partial redemption, the Corporation shall execute and the Trustee shall authenticate

and deliver to, or on the order of, the presenting person a new Debenture in the principal amount equal to the unredeemed portion of the principal of the Debenture so presented.

In the case of any Debenture or portion thereof which is presented for redemption pursuant to this Article 4 and which has not been redeemed at the time the Corporation gives notice of its election to redeem Debentures pursuant to Article 3, such Debenture or portion thereof shall first be subject to redemption pursuant to Article 3 and if any such Debenture is not redeemed pursuant to Article 3 it shall then be subject to redemption pursuant to Article 4.

Nothing herein shall prohibit the Corporation from redeeming, in acceptance of tenders made pursuant hereto, Debentures in excess of the principal amount that the Corporation is obligated to redeem, nor from purchasing any Debentures in the open market. However, the Corporation may not use any Debentures purchased in excess of its obligation to redeem or in the open market as a credit against its redemption obligation hereunder.

Section 4.03. Withdrawal.

Any Debentures presented for redemption upon the death of the Debentureholder or the beneficial owner thereof may be withdrawn by the person presenting the same upon delivery of a written request for such withdrawal given to the Trustee prior to the issuance of a check in payment thereof.

Section 4.04. Redemption Register.

The Trustee shall maintain at its corporate trust office a register (the "Redemption Register") in which it shall record, in order of receipt, all presentations for redemption received by the Trustee in accordance with Section 4.02. Unless withdrawn, all such requests shall remain in effect, during the period in which they are received and thereafter from period to period, until the Debentures which are the subject of such request have been redeemed.

ARTICLE 5 COVENANTS

Section 5.01. Payment of Debentures.

The Corporation shall pay the principal of and interest on the Debentures on the dates and in the manner provided herein. Principal and interest shall be considered paid on the date due if the Trustee or any Paying Agent holds on that date money sufficient to pay all principal and interest then due, provided that if the Debentures are to be redeemed, notice of such redemption has been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee has been made.

The Corporation shall pay interest on overdue principal at the rate borne by the Debentures; it shall pay interest on overdue installments of interest at the same rate to the extent lawful.

Section 5.02. Reporting.

The Corporation shall file with the Trustee within 15 days after it files them with the SEC copies of the annual reports and of such information, documents, and other reports (or copies of such portions of any of the foregoing as the SEC may by rules and regulations prescribe) which the Corporation is required to file with the SEC pursuant to Section 13 or 15(d) of the Exchange Act. The Corporation also shall comply with the other provisions of TIA §314(a). The Corporation shall furnish to the Holder of Debentures upon request of such Holder, annual financial statements and quarterly reports containing unaudited financial statements.

Section 5.03. Corporate Existence.

Subject to Article 6, the Corporation will do or cause to be done all things necessary to preserve and keep in full force and effect its corporate existence and the rights (charter and statutory) of the Corporation; provided, however, that the Corporation shall not be required to preserve any such right, if the Board of Directors shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Corporation and its Subsidiaries taken as a whole and that the loss thereof is not, and will not be, adverse in any material respect to the Holders.

Section 5.04. Compliance Certificate.

The Corporation shall deliver to the Trustee within 120 days after the end of each fiscal year of the Corporation an Officers' Certificate stating whether or not the signers know of any Default that occurred during the fiscal year. If they do, the certificate shall describe the Default and its status. The certificate need not comply with Section 12.05.

ARTICLE 6 SUCCESSORS

Section 6.01 When Corporation May Merge, etc.

The Corporation shall not consolidate or merge into, or transfer or lease all or substantially all of its assets to any person unless:

- (1) the person is a corporation organized and existing under the laws of the United States, or any State thereof or the District of Columbia;

- (2) the person assumes by supplemental indenture all the obligations of the Corporation under the Debentures and this Indenture, except that it need not assume the obligations of the Corporation as to conversion of the Debentures, if pursuant to Section 11.15, an Affiliate of the surviving, transferee or lessee corporation obligates itself by supplemental indenture to deliver securities, cash or other assets upon conversion of the Debentures;
- (3) immediately after the transaction no Default exists; and
- (4) the Corporation has delivered to the Trustee an Officers' Certificate and Opinion of Counsel, each stating that the transaction and supplemental indenture comply with this Article and Section 11.15.

The surviving, transferee or lessee corporation shall be the successor Corporation, but the predecessor Corporation in the case of a transfer or lease shall not be released from the obligation to pay the principal of and interest on the Debentures.

ARTICLE 7 DEFAULTS AND REMEDIES

Section 7.01. Events of Default.

An "Event of Default" occurs if:

- (1) the Corporation defaults in the payment of interest on any Debenture when the same becomes due and payable and the Default continues for a period of 30 days;
- (2) the Corporation defaults in the payment of the principal of any Debenture when the same becomes due and payable at maturity, upon redemption or otherwise;
- (3) the Corporation fails to comply with any of its other agreements in the Debenture or this Indenture and the Default continues for the period and after the notice specified below;
- (4) the Corporation defaults in the payment of any indebtedness having an outstanding principal balance of \$10,000,000 or more, whether such indebtedness now exists or shall hereafter be created, and any period of grace with respect thereto shall have expired, which default shall

result in such indebtedness being declared due and payable prior to the date on which it would otherwise become due and payable, and such default in payment is not cured, or such acceleration shall not be rescinded, annulled or obviated through payment, within thirty days after written notice to the Corporation from the Trustee or to the Corporation and to the Trustee from the Holders of not less than 25% in principal amount of the Debentures then outstanding under the Indenture, provided that no default shall occur hereunder if there shall have been delivered to the Trustee an Officers' Certificate stating that the Corporation is contesting in good faith the existence of such default in payment or event of default;

- (5) the Corporation pursuant to or within the meaning of any Bankruptcy Law:
 - (A) commences a voluntary case,
 - (B) consents to the entry of an order for relief against it in an involuntary case,
 - (C) consents to the appointment of a Custodian of it or for all or substantially all of its property, or
 - (D) makes a general assignment for the benefit of its creditors; or
- (6) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law, and the order or decree remains unstayed and in effect for 60 days, that:
 - (A) is for relief against the Corporation in an involuntary case,
 - (B) appoints a Custodian of the Corporation or for all or substantially all of its property, or
 - (C) orders the liquidation of the Corporation.

The term "Bankruptcy Law" means title 11, U.S. Code, or any similar Federal or State law for the relief of debtors. The term "Custodian" means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

A Default under clause (3) is not an Event of Default until the Trustee or the Holders of at least 25% in principal

amount of the Debentures then outstanding notify the Corporation of the Default and the Corporation does not cure the Default within 90 days after receipt of the notice. The notice must specify the Default, demand that it be remedied and state that the notice is a "Notice of Default." The Trustee shall, if requested to do so by the Holders of 25% in principal amount of the Debentures, notify the Corporation of the Default pursuant to this Section.

Subject to the provisions of Sections 8.01 and 8.02, the Trustee shall not be charged with knowledge of any Event of Default unless written notice thereof shall have been given to a Trust Officer of the Trustee at the Corporate Trust Office by the Corporation, the Paying Agent, the Holder of a Debenture or an agent of such Holder.

Section 7.02. Acceleration.

If an Event of Default occurs, and is continuing, the Trustee, by notice to the Corporation, or the Holders of at least 25% in principal amount of the Debentures then outstanding, by notice to the Corporation and the Trustee, may declare the principal of, and accrued interest on, all the Debentures to be due and payable. Upon such declaration the principal and interest shall be due and payable immediately.

The Holders of a majority in principal amount of the Debentures then outstanding, by notice to the Trustee, may rescind an acceleration of all the Debentures and its consequences if (i) all existing Events of Default have been cured or waived except nonpayment of the principal and interest that has become due solely because of the acceleration and (ii) if the rescission would not conflict with any judgment or decree of a court of competent jurisdiction. No such rescission shall affect any subsequent Default or impair any right consequent thereon.

Section 7.03. Other Remedies.

If an Event of Default occurs and is continuing, the Trustee may pursue any available remedy to collect the payment of principal or interest on the Debentures or to enforce the performance of any provision of the Debenture or this Indenture.

The Trustee may maintain a proceeding even if it does not possess any of the Debentures or does not produce any of them in the proceeding. A delay or omission by the Trustee or any Debentureholder in exercising any right or remedy accruing upon an Event of Default shall not impair the right or remedy or constitute a waiver of or acquiescence in such Event of Default. All remedies are cumulative to the extent permitted by law.

Section 7.04. Waiver of Past Defaults.

The Holders of a majority in principal amount of the Debentures, by notice to the Trustee, may waive an existing Default and its consequences, except a Default in the payment of the principal of or interest on any Debenture or a Default under Article 11 hereof, an uncured failure to make any redemption payment or an uncured default with respect to a provision which cannot be modified under the terms of this Indenture without the consent of each Holder affected.

Section 7.05. Control by Majority.

The Holders of a majority in principal amount of the Debentures then outstanding may direct the time, method and place of conducting any proceeding for any remedy available to the Trustee or exercising any trust or power conferred on it. However, the Trustee may refuse to follow any direction that conflicts with law or this Indenture, is unduly prejudicial to the rights of other Debentureholders, or would involve the Trustee in personal liability; provided, that the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction.

Section 7.06. Limitation on Suits.

A Debentureholder may pursue a remedy with respect to this Indenture or the Debenture only if:

- (1) the Holder gives to the Trustee notice of a continuing Event of Default;
- (2) the Holders of at least 25% in principal amount of the Debentures then outstanding make a written request to the Trustee to pursue the remedy;
- (3) such Holder or Holders offer to the Trustee indemnity satisfactory to the Trustee against any loss, liability or expense;
- (4) the Trustee does not comply with the request within 60 days after receipt of the request and the offer of indemnity; and
- (5) during such 60-day period the Holders of a majority in principal amount of the Debentures then outstanding do not give the Trustee a direction inconsistent with the request.

A Debentureholder may not use this Indenture to prejudice the rights of another Debentureholder or to obtain a preference or priority over another Debentureholder.

Section 7.07. Rights of Holders to Receive Payment.

Notwithstanding any other provision of this Indenture, the right of any Holder of a Debenture to receive payment of principal and interest on the Debenture, on or after the respective due dates expressed in the Debenture, or to bring suit for the enforcement of any such payment on or after such respective dates, is absolute and unconditional and shall not be impaired or affected without the consent of the Holder.

Notwithstanding any other provision of this Indenture, the right of any Holder of a Debenture to bring suit for the enforcement of the right to convert the Debenture shall not be impaired or affected without the consent of the Holder.

Section 7.08. Collection Suit by Trustee.

If an Event of Default in payment of interest or principal specified in Section 7.01(1) or (2) occurs and is continuing, the Trustee may recover judgment in its own name and as trustee of an express trust against the Corporation for the whole amount of unpaid principal and accrued interest remaining unpaid. The Trustee may file such action to recover judgment based upon an Event of Default in the payment of interest or principal in a court of competent jurisdiction located in the State of Missouri. The Corporation hereby consents to subject itself to the jurisdiction of such courts located in the State of Missouri and hereby agrees to enter an appearance in such proceeding, provided the Trustee shall notify the Corporation of the commencement of such proceeding as herein provided generally with respect to the giving of notices.

Section 7.09. Trustee May File Proofs of Claim.

The Trustee may file such proofs of claim and other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and the Debentureholders allowed in any judicial proceedings relative to the Corporation, its creditors or its property, and shall be entitled and empowered to collect and receive any monies or other property payable or deliverable on any such claims and to distribute the same, and any Custodian in any such judicial proceeding is hereby authorized by each Debentureholder to make such payments to the Trustee, and in the event that the Trustee shall consent to the making of such payments directly to the Debentureholders, to pay to the Trustee any amount due to it for the reasonable compensation, expenses and disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 8.07.

Section 7.10. Priorities.

If the Trustee collects any money pursuant to this Article, it shall pay out the money in the following order:

First: to the Trustee for amounts due under Section 8.07;

Second: to Debentureholders for amounts due and unpaid on the Debentures for principal and interest, ratably, without preference or priority of any kind, according to the amounts due and payable on the Debentures for principal and interest, respectively; and

Third: to the Corporation.

The Trustee may fix a record date and payment date for any payment to Debentureholders pursuant to this Article.

Section 7.11. Undertaking for Costs.

In any suit for the enforcement of any right or remedy under this Indenture or in any suit against the Trustee for any action taken or omitted by it as Trustee, a court in its discretion may require the filing by any party litigant in the suit of an undertaking to pay the costs of the suit, and the court in its discretion may assess reasonable costs, including reasonable attorneys' fees, against any party litigant in the suit, having due regard to the merits and good faith of the claims or defenses made by the party litigant. This Section does not apply to a suit by the Trustee, a suit by a Holder pursuant to Section 7.07 or a suit by Holders of more than 10% in principal amount of the Debentures.

Section 7.12. Waiver of Stay or Extension Laws.

The Corporation covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of the Indenture; and the Corporation (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law, and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

Section 7.13. Restoration of Rights and Remedies.

If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under the Indenture

and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case the Corporation, the Trustee and the Holders shall, subject to any determination in such proceeding, be restored severally and respectively to their former positions hereunder, and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

ARTICLE 8 TRUSTEE

Section 8.01. Duties of Trustee.

- (a) If an Event of Default has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.
- (b) Except during the continuance of an Event of Default:
 - (1) The Trustee need perform only those duties that are specifically set forth in this Indenture and no others.
 - (2) In the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture. However, the Trustee shall examine the certificates and opinions to determine whether or not they conform to the requirements of this Indenture.
- (c) The Trustee may not be relieved from liability for its own negligent action, its own negligent failure to act or its own willful misconduct, except that:
 - (1) This paragraph does not limit the effect of paragraph (b) of this Section;
 - (2) The Trustee shall not be liable for any error of judgment made in good faith by a Trust Officer, unless it is proved

that the Trustee was negligent in ascertaining the pertinent facts; and

- (3) The Trustee shall not be liable with respect to any action it takes or omits to take in good faith in accordance with a direction received by it pursuant to Section 7.05.
- (d) Every provision of this Indenture that in any way relates to the Trustee is subject to paragraphs (a), (b) and (c) of this Section.
- (e) The Trustee may refuse to perform any duty or exercise any right or power unless it receives indemnity satisfactory to it against any loss, liability or expense.
- (f) The Trustee shall not be liable for interest on any money received by it except as otherwise agreed with the Corporation. Money held in trust by the Trustee need not be segregated from other funds except to the extent required by law.

Section 8.02. Rights of Trustee.

Except as otherwise provided in Section 8.01:

- (a) The Trustee may rely on any document believed by it to be genuine and to have been signed or presented by the proper person. The Trustee need not investigate any fact or matter stated in the document.
- (b) Before the Trustee acts or refrains from acting, it may require an Officers' Certificate or an Opinion of Counsel. The Trustee shall not be liable for any action it takes or omits to take in good faith in reliance on an Officers' Certificate or Opinion of Counsel.
- (c) The Trustee may act through agents and shall not be responsible for the misconduct or negligence of any agent appointed with due care.
- (d) The Trustee shall not be liable for any action it takes or omits to take in good faith which it believes to be authorized or within its rights or powers.

Section 8.03. Individual Rights of Trustee.

The Trustee in its individual or any other capacity may become the owner or pledgee of Debentures and may otherwise deal with the Corporation or an Affiliate with the same rights it would have if it were not Trustee. Any Agent may do the same with like rights. However, the Trustee is subject to Sections 8.10 and 8.11.

Section 8.04. Trustee's Disclaimer.

The Trustee makes no representation as to the validity or adequacy of this Indenture or the Debenture, it shall not be accountable for the Corporation's use of the proceeds from the Debentures, and it shall not be responsible for any statement in the Debenture other than its authentication.

Section 8.05. Notice of Events of Defaults.

If an Event of Default occurs and is continuing and if it is known to the Trustee, the Trustee shall mail to Debentureholders a notice of the Event of Default within 90 days after it occurs. Except in the case of a Event of Default in payment on any Debenture, the Trustee may withhold the notice if and so long as a committee of its Trust Officers in good faith determines that withholding the notice is in the interests of Debentureholders.

Section 8.06. Reports by Trustee to Holders.

Within 60 days after each March 1 following the date of this Indenture, the Trustee shall mail to Debentureholders a brief report dated as of such reporting date that complies with TIA §313(a). The Trustee also shall comply with TIA §313(b)(2).

A copy of each report at the time of its mailing to Debentureholders shall be filed with the SEC and each stock exchange on which the Debentures are listed. The Corporation shall notify the Trustee when the Debentures are listed on any stock exchange.

Section 8.07. Compensation and Indemnity.

The Corporation shall pay to the Trustee from time to time reasonable compensation for its services. The Trustee's compensation shall not be limited by any law on compensation of a trustee of an express trust. The Corporation shall reimburse the Trustee upon request for all reasonable out-of-pocket expenses incurred by it. Such expenses shall include the reasonable compensation and out-of-pocket expenses of the Trustee's agents and counsel.

The Corporation shall indemnify the Trustee against any loss or liability incurred by it. The Trustee shall notify the Corporation promptly of any claim for which it may seek indemnity. The Corporation shall defend the claim and the Trustee shall cooperate in the defense. The Trustee may have separate counsel and the Corporation shall pay the reasonable fees and expenses of such counsel. The Corporation need not pay for any settlement made without its consent which shall not be unreasonably withheld.

The Corporation need not reimburse any expense or indemnify against any loss or liability incurred by the Trustee through negligence or bad faith.

To secure the Corporation's payment obligations in this Section, the Trustee shall have a lien prior to the Debentures on all money or property held or collected by the Trustee, except that held in trust to pay principal and interest on particular Debentures.

When the Trustee incurs expenses or renders services after an Event of Default specified in Section 7.01(4) or (5) occurs, the expenses and the compensation for the services are intended to constitute expenses of administration under any Bankruptcy Law.

Section 8.08. Replacement of Trustee.

A resignation or removal of the Trustee and appointment of a successor Trustee shall become effective only upon the successor Trustee's acceptance of appointment as provided in this Section.

The Trustee may resign by so notifying the Corporation. The Holders of a majority in principal amount of the Debentures may remove the Trustee by so notifying the Trustee and the Corporation. The Corporation may remove the Trustee if:

- (1) the Trustee fails to comply with Section 8.10;
- (2) the Trustee is adjudged a bankrupt or an insolvent;
- (3) a receiver or public officer takes charge of the Trustee or its property; or
- (4) the Trustee become incapable of acting.

If the Trustee resigns or is removed or if a vacancy exists in the office of Trustee for any reason, the Corporation shall promptly appoint a successor Trustee. Within one year after the successor Trustee assumes office, the Holders of a majority in principal amount of the Debentures may appoint a

successor Trustee to replace the successor Trustee appointed by the Corporation.

If a successor Trustee does not take office within 60 days after the retiring Trustee resigns or is removed, the retiring Trustee, the Corporation or the Holders of at least 10% in principal amount of the Debentures then outstanding may petition any court of competent jurisdiction for the appointment of a successor Trustee.

If the Trustee fails to comply with Section 8.10, any Debentureholder may petition any court of competent jurisdiction for the removal of the Trustee and the appointment of a successor Trustee.

A successor Trustee shall deliver a written acceptance of its appointment to the retiring Trustee and to the Corporation. Thereupon the resignation or removal of the retiring Trustee shall become effective, and the successor Trustee shall have all the rights, powers and duties of the Trustee under this Indenture. The successor Trustee shall mail a notice of its succession to Debentureholders. The retiring Trustee shall promptly transfer all property held by it as Trustee to the successor Trustee, subject to the lien provided for in Section 8.07.

Section 8.09. Successor Trustee by Merger, etc.

If the Trustee consolidates, merges or converts into, or transfers all or substantially all of its corporate trust business to, another corporation, the surviving or transferee corporation without any further act shall be the successor Trustee.

Section 8.10. Eligibility; Disqualification.

This Indenture shall always have a Trustee who satisfies the requirements of TIA §310(a)(1). The Trustee shall always have a combined capital and surplus of at least \$10,000,000 as set forth in its most recent published annual report of condition. The Trustee is subject to TIA §310(b), including the optional provision permitted by the second sentence of TIA §310(b)(9).

Section 8.11. Preferential Collection of Claims Against Corporation.

The Trustee is subject to TIA §311(a), excluding any creditor relationship listed in TIA §311(b). A Trustee who has resigned or been removed is subject to TIA §311(a) to the extent indicated.

Section 8.12. Appointment of Co-Trustee.

It is the purpose of this Indenture that there shall be no violation of any law of any jurisdiction denying or restricting the right of banking corporations or associations to transact business as trustee in such jurisdiction. It is recognized that in case of litigation under this Indenture, and in particular in case of the enforcement on an Event of Default, or in case the Trustee deems that by reason of any present or future law of any jurisdiction it may not exercise any of the powers, rights or remedies herein granted to the Trustee in trust, as herein granted, or take any other action which may be desirable or necessary in connection therewith, it may be necessary that the Trustee appoint an additional individual or institution as a separate or Co-Trustee.

The Trustee may appoint an additional individual or institution as a separate or Co-Trustee, in which event each and every remedy, power, right, claim, demand, cause of action, immunity, estate, title, interest and lien expressed or intended by this Indenture, to be exercised by or vested in or conveyed to the Trustee with respect thereto shall be exercisable by and vest in such separate or Co-Trustee but only to the extent necessary to enable such separate or Co-Trustee to exercise such powers, rights and remedies, and every covenant and obligation necessary to the exercise thereof by such separate or Co-Trustee shall run to and be enforceable by either of them.

Should any deed, conveyance or instrument in writing from the Corporation be required by the separate or Co-Trustee so appointed by the Trustee for more fully and certainly vesting in and confirming to it such properties, rights, powers, trusts, duties and obligations, including particularly the right to be paid its fees and expenses for services rendered, any and all such deeds, conveyances and instruments in writing shall, on request, be executed, acknowledged and delivered by the Corporation. In case any separate or Co-Trustee, or a successor to either, shall die, become incapable of acting, resign or be removed, all the estates, properties, rights, powers, trusts, duties and obligations of such separate or Co-Trustee, so far as permitted by law, shall vest in and be exercised by the Trustee until the appointment of a new Trustee or successor to such separate or Co-Trustee.

ARTICLE 9 DISCHARGE OF INDENTURE

Section 9.01. Termination of Corporation's Obligations.

The Corporation may at any time terminate all of its obligations under this Indenture if:

- (1) the Corporation irrevocably deposits in trust with the Trustee money or U. S. Government Obligations sufficient to pay principal and interest on the Debentures at maturity or on redemption, as the case may be; and
- (2) if such deposit shall be sufficient to pay principal, premium, if any, and interest on the Debentures only to a specified redemption date, the Corporation shall have given to the Trustee irrevocable instructions to call the Debentures for redemption on such date.

However, the Corporation's obligations in Sections 2.03, 2.04, 2.05, 2.06, 2.07, 5.01, 8.07, 8.08 and 9.03 and in Article 11, shall survive until the Debentures are no longer outstanding. Thereafter, the Corporation's obligations in Sections 8.07 and 9.03 shall survive.

After a deposit, the Trustee upon request shall acknowledge in writing the discharge of the Corporation's obligations under this Indenture except for those surviving obligations specified above.

In order to have money available on a payment date to pay principal or interest on the Debentures, the U. S. Government Obligations shall be payable as to principal or interest on or before such payment date in such amounts as will provide the necessary money. The U. S. Government Obligations shall not be callable at the issuer's option.

"U. S. Government Obligations" means direct obligations of the United States or those obligations for the payment of which the full faith and credit of the United States is pledged.

Section 9.02. Application of Trust Money.

The Trustee shall hold in trust money or U. S. Government Obligations deposited with it pursuant to Section 9.01. It shall apply the deposited money and the money from the U. S. Government Obligations through the Paying Agent and in accordance with this Indenture to the payment of principal and interest on the Debentures.

Section 9.03. Repayment to Corporation.

The Trustee and the Paying Agent shall promptly pay to the Corporation upon request any excess money or securities held by them at any time. The obligation of the Trustee and the Paying Agent to pay such excess money or securities to the Corporation shall survive the payment, conversion and/or cancellation of all the Debentures until all such excess money and securities have been so paid.

The Trustee and the Paying Agent shall pay to the Corporation upon request any money held by them for the payment of principal or interest that remains unclaimed for two years. After payment to the Corporation, Debentureholders entitled to the money must look to the Corporation for payment as general creditors unless an applicable abandoned property law designates another person.

ARTICLE 10 AMENDMENTS, SUPPLEMENTS AND WAIVERS

Section 10.01. Without Consent of Holders.

The Corporation and the Trustee may amend or supplement this Indenture or the Debenture without the consent of any Debentureholder:

- (1) to cure any ambiguity, omission, defect or inconsistency;
- (2) to comply with Section 6.01 and Section 11.15;
- (3) to provide for uncertificated Debentures in addition to certificated Debentures; or
- (4) to make any change that does not adversely affect the rights of any Debentureholder.

Section 10.02. With Consent of Holders.

The Corporation and the Trustee may amend or supplement this Indenture or the Debentures with the written consent of the Holders of at least a majority in principal amount of the Debentures then outstanding. Without the consent of each Debentureholder affected, however, an amendment under this Section may not:

- (1) reduce the amount of Debentures whose Holders must consent to an amendment or waiver;
- (2) reduce the rate of or change the time for payment of interest on any Debenture;
- (3) reduce the principal of or change the maturity of any Debenture;
- (4) waive a Default in the payment of the principal of or interest on any Debenture;
- (5) make any Debenture payable in money other than that stated in the Debenture; or
- (6) modify the provisions of Sections 7.04, 7.07 and 10.02 (second sentence).

After an amendment or supplement under this Section becomes effective, the Corporation shall mail to Debenture-holders a notice briefly describing the amendment.

Section 10.03. Compliance with Trust Indenture Act.

Every amendment or supplement to this Indenture or the Debenture shall be set forth in a supplemental indenture that complies with the TIA as then in effect.

Section 10.04. Revocation and Effect of Consents.

Until an amendment, supplement or waiver becomes effective, a consent to it by a Holder of a Debenture is a continuing consent by the Holder and every subsequent Holder of a Debenture or portion of a Debenture that evidences the same debt as the consenting Holder's Debenture, even if notation of the consent is not made on any Debenture. However, any such Holder or subsequent Holder may revoke the consent as to his Debenture or portion of a Debenture if the Trustee receives the notice of revocation before the date the amendment, supplement or waiver becomes effective.

Section 10.05. Notation on or Exchange of Debentures.

The Trustee may place an appropriate notation about an amendment, supplement or waiver on any Debenture thereafter authenticated. The Corporation in exchange for all Debentures may issue and the Trustee shall authenticate new Debentures that reflect the amendment, supplement or waiver.

Section 10.06. Trustee Protected.

The Trustee need not sign any supplemental indenture that adversely affects its rights.

ARTICLE 11 CONVERSION

Section 11.01. Conversion Privilege; Conversion Price.

A Holder of a Debenture, at his sole option, may convert such Debenture into Common Stock at any time prior to the close of business on March 1, 2012. If a Debenture is called for redemption by the Corporation, the Holder thereof may convert such Debenture into Common Stock at any time prior to the close of business on the Redemption Date. The number of shares of Common Stock issuable upon conversion of a Debenture is determined by dividing the principal amount to be converted by the Conversion Price in effect on the Conversion Date.

The initial Conversion Price is \$29.85 per share. The Conversion Price is subject to adjustment as described in this Article 11.

A Holder may convert a portion of a Debenture if the portion to be converted is \$1,000 or an integral multiple thereof. Provisions in this Indenture which apply to the conversion of all of a Debenture also apply to a portion of such Debenture.

Section 11.02. Conversion Procedure.

To convert a Debenture, a Holder must:

- (i) complete and sign the conversion notice on the back of the Debenture;
- (ii) surrender the Debenture to the Conversion Agent;
- (iii) furnish appropriate endorsements and transfer documents if required by the Registrar or the Conversion Agent; and
- (iv) pay any transfer or similar tax required by Section 11.04.

The date on which the Holder satisfies all such requirements is the Conversion Date. As soon as practicable thereafter, the Corporation shall deliver through the Conversion Agent a certificate for the number of full shares of Common Stock issuable upon the conversion and a check for any fractional share. The person in whose name the certificate is registered shall be treated as a stockholder of record of the Corporation on and after the Conversion Date.

No payment or adjustment will be made for accrued interest on a converted Debenture.

If a Holder converts more than one Debenture at the same time, the number of full shares issuable upon the conversion shall be based on the total principal amount of the Debentures converted.

Upon surrender of a Debenture that is converted in part, the Trustee shall authenticate for the Holder a new Debenture equal in principal amount to the unconverted portion of the Debenture surrendered.

If the last day on which a Debenture may be converted is a Legal Holiday in a place where a Conversion Agent is located, the Debenture may be surrendered to that Conversion Agent on the next succeeding day that is not a Legal Holiday.

Section 11.03. Fractional Shares.

The Corporation will not issue a fractional share of Common Stock upon conversion of a Debenture. Instead the

Corporation will deliver its check for the current market value of the fractional share. The current market value of a fraction of a share is determined by multiplying the current market price of a full share by the fraction and rounding the result to the nearest cent.

The current market price of a share of Common Stock is the Quoted Price of the Common Stock on the last trading day prior to the Conversion Date. In the absence of such a quotation, the Corporation shall determine the current market price on the basis of such quotations as it considers appropriate.

Section 11.04. Taxes on Conversion.

If a Holder of a Debenture converts it, the Corporation shall pay any documentary, stamp or similar issue or transfer tax due on the issue of shares of Common Stock upon the conversion. However, the Holder shall pay any such tax which is due because the shares are issued in a name other than the Holder's name.

Section 11.05. Corporation to Provide Stock.

The Corporation shall at all times reserve and have available, free from preemptive rights out of its authorized but unissued Common Stock or its Common Stock held in treasury, enough shares of Common Stock to permit the conversion of the Debentures.

All shares of Common Stock which may be issued upon conversion of the Debentures shall be fully paid and nonassessable.

Before taking any action that would cause an adjustment reducing the Conversion Price below the then par value (if any) of the shares of Common Stock issuable upon conversion of the Debentures, the Corporation will take any corporate action which may, in the opinion of its counsel, be necessary in order that the Corporation may validly and legally issue fully paid and nonassessable shares of such Common Stock at such Conversion Price.

The Corporation will endeavor to comply with all securities laws regulating the offer and delivery of shares of Common Stock upon conversion of Debentures and will endeavor to list such shares on each national securities exchange, if any, on which its Common Stock is then listed.

Section 11.06. Adjustment for Change in Capital Stock.

If the Corporation:

- (1) pays a dividend or makes a distribution on its Common Stock in shares of its Common Stock;

- (2) subdivides its outstanding shares of Common Stock into a greater number of shares;
- (3) combines its outstanding shares of Common Stock into a smaller number of shares;
- (4) makes a distribution on its Common Stock in shares of its Capital Stock other than Common Stock; or
- (5) issues by reclassification of its Common Stock any shares of its Capital Stock,

then the conversion privilege and the Conversion Price in effect immediately prior to such action shall be adjusted so that the Holder of a Debenture thereafter converted may receive the number of shares of Capital Stock of the Corporation which he would have owned immediately following such action if he had converted the Debenture immediately prior to such action.

Subject to Section 11.10, the adjustment shall become effective immediately after the record date in the case of a dividend or distribution and immediately after the effective date in the case of a subdivision, combination or reclassification.

If, after an adjustment, a Holder of a Debenture, upon conversion of such Debenture may receive shares of two or more classes of Capital Stock of the Corporation, the Board of Directors shall determine the allocation of the adjusted Conversion Price between the classes of Capital Stock. After such allocation, the conversion privilege and the Conversion Price with respect to each class of Capital Stock shall thereafter be subject to adjustment on terms comparable to those with respect to Common Stock in this Article.

Section 11.07. Adjustment for Rights Issue.

If the Corporation distributes any rights or warrants to all holders of its Common Stock entitling them for a period expiring within 60 days after the record date mentioned below to purchase shares of Common Stock at a price per share less than the current market price per share on that record date, the Conversion Price shall be adjusted in accordance with the formula:

$$C' = C \times \frac{0 + \frac{(N \times P)}{M}}{0 + N}$$

where:

C' = the adjusted Conversion Price.

- C = the current Conversion Price.
- O = the number of shares of Common Stock outstanding on the record date.
- N = the number of additional shares of Common Stock offered.
- P = the offering price per share of the additional shares.
- M = the current market price per share of Common Stock on the record date.

Subject to Section 11.10, the adjustment shall become effective immediately after the record date for the determination of stockholders entitled to receive the rights or warrants.

Section 11.08. Adjustment for Other Distributions.

If the Corporation distributes to all holders of its Common Stock any of its assets or debt securities or any rights or warrants to purchase securities of the Corporation, the Conversion Price shall be adjusted in accordance with the formula:

$$C' = C \times \frac{M - F}{M}$$

where:

- C' = the adjusted Conversion Price.
- C = the current Conversion Price.
- M = the current market price per share of Common Stock on the record date mentioned below.
- F = the fair market value on the record date of the assets, securities, rights or warrants applicable to one share of Common Stock. The Corporation shall determine the fair market value.

Subject to Section 11.10, the adjustment shall become effective immediately after the record date for the determination of stockholders entitled to receive the distribution.

This Section does not apply to cash dividends or cash distributions paid out of consolidated current or retained earnings as shown on the books of the Corporation. Also, this Section does not apply to rights or warrants referred to in Section 11.07.

Section 11.09. Current Market Price.

In Sections 11.07 and 11.08, the current market price per share of Common Stock on any date is the average of the Quoted Prices of the Common Stock for 30 consecutive trading days commencing 45 trading days before the date in question. In the absence of one or more such quotations, the Board of Directors shall determine the current market price on the basis of such quotations as it considers appropriate.

Section 11.10. When Adjustment May Be Deferred.

No adjustment in the Conversion Price need be made pursuant to Section 11.06 unless the adjustment would require an increase or decrease of at least 1% in the Conversion Price. No adjustment in the Conversion Price need be made pursuant to Sections 11.07 or 11.08 unless the adjustment would require an increase or decrease of at least 5% in the Conversion Price. Any adjustments that are not made pursuant to Section 11.06 shall be carried forward and taken into account in the calculation of any subsequent adjustment pursuant to Section 11.06. Any adjustments that are not made pursuant to either Section 11.07 or 11.08 shall be carried forward and taken into account in the calculation of any subsequent adjustment pursuant to Section 11.07 or 11.08.

All calculations under this Article shall be made to the nearest cent or to the nearest 1/100th of a share, as the case may be.

Section 11.11. When No Adjustment Required.

No adjustment need be made for a transaction referred to in Section 11.06, 11.07 or 11.08 if Debentureholders are to participate in the transaction on a basis and with notice that the Board of Directors determines to be fair and appropriate in light of the basis and notice on which holders of Common Stock participate in the transaction.

No adjustment need be made for rights to purchase Common Stock pursuant to a Corporation plan for reinvestment of dividends or interest or pursuant to an employees' stock purchase or stock option plan.

No adjustment need be made for a change in the par value of the Common Stock or from par value Common Stock to no par value Common Stock.

To the extent the Debentures become convertible into cash, no adjustment need be made thereafter as to the cash. Interest will not accrue on the cash.

Section 11.12. Notice of Adjustment.

Whenever the Conversion Price is adjusted, the Corporation shall promptly mail to Debentureholders a notice of the adjustment. The Corporation shall file with the Trustee a certificate from the Corporation's independent public accountants briefly stating the facts requiring the adjustment and the manner of computing it. The certificate shall be conclusive evidence that the adjustment is correct.

Section 11.13. Voluntary Reduction.

The Corporation, at its option, from time to time may reduce the Conversion Price by any amount for any period of time if the period is at least 20 days and if the reduction is irrevocable during the period.

Whenever the Conversion Price is reduced, the Corporation shall mail to Debentureholders a notice of the reduction. The Corporation shall mail the notice at least 15 days before the date that the reduced Conversion Price takes effect. The notice shall state the reduced Conversion Price and the period it will be in effect.

A reduction of the Conversion Price does not change or adjust the Conversion Price otherwise in effect for purposes of Sections 11.06 through 11.08.

Section 11.14. Notice of Certain Transactions.

If:

- (1) the Corporation takes any action that would require an adjustment in the Conversion Price pursuant to Section 11.06, 11.07 or 11.08 and if the Corporation does not allow Debentureholders to participate pursuant to Section 11.11;
- (2) the Corporation takes any action that would require a supplemental indenture pursuant to Section 11.15; or
- (3) there is a liquidation or dissolution of the Corporation,

the Corporation shall cause to be filed with the Trustee and Conversion Agent and shall mail to Debentureholders a notice stating the proposed record date (or other applicable determination date) for a dividend or distribution or the proposed effective date of a subdivision, combination, reclassification, consolidation, merger, transfer, lease, liquidation or dissolution and the date as of which it is expected that holders of Common Stock of record shall be entitled to exchange

their shares of Common Stock for securities or other property deliverable in connection with such transaction. The Corporation shall mail the notice at least 20 days before such date. Failure to mail the notice or any defect in it shall not affect the validity of the transaction.

Section 11.15. Reorganization of Corporation.

If the Corporation is a party to a transaction subject to Section 6.01 or a merger which reclassifies or changes its outstanding Common Stock, the person obligated to deliver securities, cash or other assets upon conversion of Debentures shall enter into a supplemental indenture. If the issuer of securities deliverable upon conversion of Debentures is an Affiliate of the surviving, transferee or lessee corporation, that issuer shall join in the supplemental indenture.

The supplemental indenture shall provide that the Holder of a Debenture may convert it into the kind and amount of securities, cash or other assets which he would have owned immediately after the consolidation, merger, transfer or lease if he had converted the Debenture immediately before the effective date of the transaction. The supplemental indenture shall provide for adjustments which shall be as nearly equivalent as may be practical to the adjustments provided for in this Article. The surviving transferee or lessee Corporation shall mail to Debentureholders a notice briefly describing the supplemental indenture.

If this Section applies, Section 11.06 does not apply.

Section 11.16. Corporation Determination Final.

Any determination that the Corporation or the Board of Directors must make pursuant to Section 11.03, 11.06, 11.07, 11.08, 11.09 or 11.11 is conclusive.

Section 11.17. Trustee's Disclaimer.

The Trustee has no duty to determine when an adjustment under this Article should be made, how it should be made or what it should be. The Trustee has no duty to determine whether any provisions of a supplemental indenture under Section 11.15 are correct. The Trustee makes no representation as to the validity or value of any securities or assets issued upon conversion of Debentures. The Trustee shall not be responsible for the Corporation's failure to comply with this Article. Each Conversion Agent other than the Corporation shall have the same protection under this Section as the Trustee.

ARTICLE 12 MISCELLANEOUS

Section 12.01. Trust Indenture Act Controls.

If any provision of this Indenture limits, qualifies, or conflicts with another provision which is required to be included in this Indenture by the TIA, the required provision shall control.

Section 12.02. Notice.

Any notice or communication by the Corporation or the Trustee to the other is duly given if in writing and delivered in person or mailed by first-class mail addressed as follows:

if to the Corporation:

NORTHWEST NATURAL GAS COMPANY
One Pacific Square
220 N.W. Second Avenue
Portland, Oregon 97209
Attn: Secretary

if to the Trustee:

CENTERRE TRUST COMPANY OF ST. LOUIS
510 Locust Street
St. Louis, Missouri 63101
Attn: Corporate Trust Division

The Corporation or the Trustee by notice to the other may designate additional or different addresses for subsequent notices or communications.

Any notice or communication to a Debentureholder shall be mailed by first-class mail to his address shown on the register kept by the Registrar. Failure to mail a notice or communication to a Debentureholder or any defect in it shall not affect its sufficiency with respect to other Debentureholders.

If a notice or communication is mailed in the manner provided above within the time prescribed, it is duly given, whether or not the addressee receives it.

If the Corporation mails a notice or communication to Debentureholders, it shall mail a copy to the Trustee and each Agent at the same time.

All notices or communications shall be in writing except as set forth below.

In case by reason of the suspension of regular mail service, or by reason of any other cause, it shall be impossible to mail any notice required by this Indenture, then such method of notification as shall be made with the approval of the Trustee shall constitute a sufficient mailing of such notice.

Section 12.03. Communication by Holders with Other Holders.

Debentureholders may communicate pursuant to TIA §312(b) with other Debentureholders with respect to their rights under this Indenture or the Debenture. The Corporation, the Trustee, the Registrar and anyone else shall have the protection of TIA §312(c).

Section 12.04. Certificate and Opinion as to Conditions Precedent.

Upon any request or application by the Corporation to the Trustee to take any action under this Indenture, the Corporation shall furnish to the Trustee:

- (1) an Officers' Certificate stating that, in the opinion of the signers, all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with; and
- (2) an Opinion of Counsel stating that, in the opinion of such counsel, all such conditions precedent have been complied with.

Section 12.05. Statements Required in Certificate or Opinion.

Each Officers' Certificate or Opinion of Counsel with respect to compliance with a condition or covenant provided for in this Indenture shall include:

- (1) a statement that the person making such Officers' Certificate or Opinion of Counsel has read such covenant or condition;
- (2) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such Officers' Certificate or Opinion of Counsel are based;
- (3) a statement that, in the opinion of such person, he has made such examination or investigation as is necessary to enable him to express an informed opinion as to whether or not such covenant or condition has been complied with; and

- (4) a statement as to whether or not, in the opinion of such person, such condition or covenant has been complied with.

Section 12.06. Rules by Trustee and Agents.

The Trustee may make reasonable rules for action by or a meeting of Debentureholders. The Registrar, Paying Agent or Conversion Agent may make reasonable rules and set reasonable requirements for its functions.

Section 12.07. Legal Holidays.

A "Legal Holiday" is a Saturday, a Sunday, or a day on which banking institutions in the relevant jurisdiction are not required to be open. If a payment date is a Legal Holiday at a place of payment, payment may be made at that place on the next succeeding day that is not a Legal Holiday, and no interest shall accrue for the intervening period.

Section 12.08. No Recourse Against Others.

No liability under the Debentures shall inure to any director, officer, employee or stockholders, as such, of the Corporation and each Debentureholder, by accepting the Debenture, waives and releases all such liability.

Section 12.09. Duplicate Originals.

The parties may sign any number of copies of this Indenture. One signed copy is enough to prove this Indenture.

Section 12.10. Governing Law.

The laws of the State of Oregon shall govern this Indenture and the Debenture.

Section 12.11. Table of Contents, Headings, etc.

The table of contents, cross-reference sheet and headings of the Articles and Sections of this Indenture have been inserted for convenience of reference only, are not to be

considered a part hereof, and shall in no way modify or restrict any of the terms or provisions hereof.

SIGNATURES

Dated: January 15, 1987

NORTHWEST NATURAL GAS COMPANY
("Corporation")

(SEAL)

By: Wesley E. Radford
Its Vice President & Treasurer

Attest: C. J. Rue
Its Secretary

Dated: January 15, 1987

CENTERRE TRUST COMPANY OF ST. LOUIS
("Trustee")

(SEAL)

By: J. Rector
Its Assistant Treasurer

Attest: H. Whelan
Its Assistant Secretary

EXHIBIT A
(Face of Debenture)

NORTHWEST NATURAL GAS COMPANY

7-1/4% Convertible Debenture due 2012

No. _____ \$ _____

NORTHWEST NATURAL GAS COMPANY, an Oregon corporation for value received, hereby promises to pay to _____, or registered assigns the principal sum of _____ DOLLARS on March 1, 2012, and to pay interest on said principal sum at the rate of 7-1/4% per annum calculated on the basis of a 360-day year of twelve 30-day months.

The interest so payable on any interest payment date will, subject to certain exceptions provided in the Indenture hereafter referred to, be paid to the person in whose name this Debenture is registered at the close of business (whether or not a business day) on the following respective record date, as the case may be, next preceding such interest payment date.

Interest Payment Dates: March 1 and September 1.

Record Dates: February 15 and August 15.

ADDITIONAL PROVISIONS OF THIS DEBENTURE ARE SET FORTH ON THE REVERSE HEREOF.

Dated:

NORTHWEST NATURAL GAS COMPANY

By: _____
Its President

(SEAL)

ATTEST:

By: _____
Its Secretary

TRUSTEE'S CERTIFICATE OF AUTHENTICATION

This Debenture is one of the Debentures provided for
in the within-mentioned Indenture.

CENTERRE TRUST COMPANY OF
ST. LOUIS, as Trustee

By: _____
Authorized Signature

(Back of Debenture)

NORTHWEST NATURAL GAS COMPANY
7-1/4% Convertible Debenture due 2012

1. Interest.

NORTHWEST NATURAL GAS COMPANY ("Corporation"), an Oregon corporation, promises to pay interest on the principal amount of this Debenture at the rate per annum shown above. The Corporation will pay interest semi-annually on March 1 and September 1, of each year, commencing September 1, 1987. Interest on this Debenture will accrue from the most recent date to which interest has been paid, or, if no interest has been paid previously, from the date of original issuance of this Debenture; provided that, if there is no existing default in the payment of interest, and if this Debenture is authenticated between a record date referred to on the face hereof and the next succeeding interest payment date, interest shall accrue from the next interest payment date.

2. Method of Payment.

The Corporation will pay interest on the Debentures (except defaulted interest) to the persons who are registered holders of Debentures at the close of business on the record date next preceding the interest payment date. The Corporation will pay interest to such holders on the next interest payment date even though Debentures are cancelled after the record date but on or before the interest payment date. Holders must surrender Debentures to a Paying Agent to collect principal payments. The Corporation will pay principal and interest in money of the United States that at the time of payment is legal tender for payment of public and private debts. However, the Corporation may pay principal and interest by check payable in such money. Payment of principal will be made at the offices of the Trustee. The Corporation may mail an interest check to a holder's registered address.

3. Paying Agent, Registrar, Conversion Agent.

Initially, Centerre Trust Company of St. Louis ("Trustee"), 510 Locust Street, St. Louis, Missouri, 63101, will act as Paying Agent, Registrar and Conversion Agent. The Corporation may change any Paying Agent, Registrar, Conversion Agent or Co-Registrar without notice. The Corporation or any of its Subsidiaries may act in any such capacity.

4. Indenture.

The Corporation issued the Debentures under an Indenture dated as of January 15, 1987 ("Indenture"), between the

Corporation and the Trustee. The terms of the Debenture include those stated in the Indenture and those made part of the Indenture by reference to the Trust Indenture Act of 1939 (15 U.S.C. §§77aaa-77bbb) as in effect on the date of the Indenture. The Debentures are subject to all such terms, and Debentureholders are referred to the Indenture and the Act for a statement of such terms. The Debentures are unsecured general obligations of the Corporation limited to \$15,000,000 in the aggregate principal amount.

5. Redemption at Corporation's Option.

The Corporation may, at its option, at any time on or after March 1, 1988, redeem all the Debentures or some of them from time to time after issuance at the following redemption prices (expressed in percentages of principal amount of the Debenture) plus unpaid accrued interest to the redemption date.

If redeemed during the 12-month period beginning March 1:

<u>Year</u>	<u>Percentage</u>	<u>Year</u>	<u>Percentage</u>
1988	106.0	1995	102.5
1989	105.5	1996	102.0
1990	105.0	1997	101.5
1991	104.5	1998	101.0
1992	104.0	1999	100.5
1993	103.5	2000 until	100.0
1994	103.0	stated maturity	

6. Notice of Redemption.

Notice of redemption at the Corporation's option will be mailed at least 30 days but not more than 60 days before the redemption date to each holder of Debentures to be redeemed at his registered address as set forth in the register. Debentures in denominations larger than \$1,000 may be redeemed in part but only in integral multiples of \$1,000. On and after the redemption date (if there is no default in the payment of the redemption price by the Corporation), interest ceases to accrue on Debentures or portions thereof called for redemption.

7. Redemption Upon Death of Debentureholder or Beneficial Owner.

The Corporation will redeem a Debenture or a portion of a Debenture (in the principal amount of \$1,000 or integral multiples thereof) within 60 days following receipt by the Trustee of a request therefor from a Qualified Institution; on behalf of a deceased beneficial owner or a deceased Debentureholder's personal representative, or surviving joint tenant, tenant by the entirety or tenant in common, subject to the limitations that the Corporation will not be obligated to redeem during any twelve-month period ending on any March 1:

(1) Debentures presented on behalf of any deceased beneficial owner or deceased Debentureholder exceeding an aggregate principal amount of \$25,000 or (2) Debentures presented by all deceased beneficial owners and deceased Debentureholders exceeding \$600,000 in aggregate principal amount. If the Corporation, although not obligated to do so, chooses to redeem Debentures of any deceased beneficial owner or deceased Debentureholder in any such twelve-month period in excess of the \$25,000 limitation, such redemption, to the extent that it exceeds the \$25,000 limitation for any deceased beneficial owner or deceased Debentureholder shall not be included in the computation of the \$600,000 limitation for such period or any succeeding period.

Debentures presented on behalf of a deceased beneficial owner or a deceased Debentureholder will be redeemed in the order of their receipt by the Trustee. Debentures presented on behalf of a deceased beneficial owner or a deceased Debentureholder not redeemed in a period because of the \$25,000 or \$600,000 limitations will be held for redemption during the following twelve-month period(s) until redeemed, unless sooner withdrawn by the person presenting the Debenture for redemption.

B. Redemption Procedure.

Debentures may be presented for redemption on behalf of a deceased beneficial owner or a deceased Debentureholder by delivering to the Trustee: (1) a written request for redemption signed by an authorized officer of a Qualified Institution holding such Debenture on behalf of such deceased Debentureholder or by such deceased Debentureholder's personal representatives or surviving joint tenant, or tenant by the entirety, or tenant in common, (2) the Debenture to be redeemed, and (3) appropriate evidence of death and, if the request is made by a personal representative of a deceased Debentureholder, appropriate evidence of authority. No particular forms of request for redemption or evidence of death or authority to request redemption are required but each must be in a form satisfactory to the Trustee. The price to be paid by the Corporation for all Debentures presented to it pursuant to the provisions described in this paragraph is 100% of the principal amount thereof plus accrued unpaid interest to the date of payment. Any acquisition of Debentures by the Corporation or its Subsidiaries in excess of the limitations described herein or made on the open market shall not be included in the computation of either the \$25,000 or \$600,000 limitations for any period.

For purposes of this paragraph, a Debenture held in joint tenancy, tenancy by the entirety, or tenancy in common will be deemed to be held by a single Debentureholder and the death of a joint tenant, tenant by the entirety or tenant in common will be deemed to be the death of a Debentureholder. The death of a person, who, during his lifetime, was entitled

to substantially all of the beneficial ownership interest of a Debenture will be deemed the death of the Debentureholder, regardless of the registered Debentureholder, if such beneficial interest can be established to the satisfaction of the Trustee. Such beneficial interest shall be deemed to exist in typical cases of street name or nominee ownership, ownership under the Uniform Gifts to Minors Act, community property or other joint ownership arrangements between a husband and wife (including individual retirement accounts or Keogh [H.R. 10] plans maintained solely by or for the decedent, or by or for the decedent and his or her spouse), and trust and certain other arrangements where one person has substantially all of the beneficial ownership interest in the Debenture during his lifetime. Beneficial interest shall include the power to sell, transfer or otherwise dispose of a Debenture and the right to receive the proceeds therefrom, as well as interest and principal payable with respect thereto.

In the case of a Debenture presented for redemption by a Qualified Institution (as such term is defined in the Indenture), on behalf of deceased beneficial owners, the \$25,000 limitation shall apply to each such beneficial owner and the death of such beneficial owner shall entitle a Qualified Institution to seek redemption of such Debentures as if the deceased beneficial owner were the Debentureholder. A Qualified Institution, in its request for redemption on behalf of such beneficial owners, must submit evidence, satisfactory to the Trustee, that it holds Debentures on behalf of such beneficial owners and must certify that the aggregate requests for redemption tendered by such Qualified Institution on behalf of each such beneficial owner in any such twelve-month period does not exceed \$25,000. In addition, any request for redemption made by a Qualified Institution on behalf of a beneficial owner must be delivered to the Trustee by registered mail, return receipt requested.

In the case of a Debenture which is presented for redemption in part only, upon such redemption, the Corporation shall execute and the Trustee shall authenticate and deliver to, or on order of, the presenting person a new Debenture in the principal amount equal to the unredeemed portion of the principal of the Debenture so presented.

In the case of any Debenture which is presented for redemption pursuant to this paragraph and which has not been redeemed at the time the Corporation gives notice of its election to redeem Debentures pursuant to paragraph 5, such Debenture shall first be subject to redemption pursuant to paragraph 5 and if any such Debenture or portion thereof is not redeemed pursuant to paragraph 5 it shall remain subject to redemption pursuant to this paragraph.

Any Debenture presented for redemption upon the death of the Debentureholder or beneficial owner thereof may be withdrawn by the person presenting the same upon delivery of a written request for such withdrawal given to the Trustee prior to issuance of the check in redemption of the Debenture.

9. Conversion.

A holder of a Debenture may convert it into Common Stock of the Corporation at any time before the close of business on March 1, 2012. If the Debenture is called for redemption, the holder may convert the Debenture at any time before the close of business on the redemption date. The initial conversion price is \$29.85 per share, subject to adjustments due to certain events set forth in the Indenture. The number of shares of Common Stock issuable upon conversion of a Debenture is determined by dividing the principal amount to be converted by the conversion price in effect on the conversion date. On conversion, no payment or adjustment for interest will be made. The Corporation will issue a check in lieu of the issuance of a fraction of a share.

To convert a Debenture, a holder must (1) complete and sign the conversion notice on the back of the Debenture, (2) surrender the Debenture to the Conversion Agent, (3) furnish appropriate endorsements and transfer documents if required by the Registrar and the Conversion Agent, and (4) pay any transfer or similar tax if required. A holder may convert a portion of a Debenture if the portion is \$1,000 or an integral multiple thereof.

The conversion price will be adjusted for dividends or distributions on Common Stock payable in the Corporation's stock; subdivisions, combinations and certain reclassifications of Common Stock; distributions to all holders of Common Stock of certain rights to purchase Common Stock at less than the then current market value; and distributions to such holders of assets or debt securities of the Corporation or certain rights to purchase securities of the Corporation (excluding cash dividends or distributions from current or retained earnings). However, (1) no adjustment will be made unless the cumulative effect on the conversion price of all such dividends, distributions, subdivisions, combinations and reclassifications shall exceed 1% or the cumulative effect of all such distributions shall exceed 5%, and (2) no adjustment need be made if holders may participate in the transaction or in certain other cases set forth in the Indenture. The Corporation may, from time to time, voluntarily reduce the conversion price for a period of time.

If the Corporation is a party to a consolidation or merger or a transfer or lease of all or substantially all of its assets, the right to convert a Debenture into Common Stock

may be changed into a right to convert the Debenture into securities, cash or other assets of the Corporation or another corporation.

10. Denominations, Transfer, Exchange.

The Debentures are in registered form without coupons in denominations of \$1,000 and integral multiples thereof. The transfer of Debentures may be registered and Debentures may be exchanged as provided in the Indenture. The Registrar may require a holder, among other things, to furnish appropriate endorsements and transfer documents and to pay any taxes and fees required by law or permitted by the Indenture. The Registrar need not exchange or register the transfer of any Debenture or portion of a Debenture selected for redemption. Also, it need not exchange or register the transfer of any Debentures for a period of 15 days before a selection of Debentures to be redeemed.

11. Persons Deemed Owners.

The registered holder of a Debenture may be treated as its owner for all purposes.

12. Amendments, Supplements and Waivers.

Subject to certain exceptions, the Indenture or the Debenture may be amended or supplemented, and any existing default may be waived, with the consent of holders of a majority in principal amount of the Debentures then outstanding. Without the consent of any Debentureholder, the Indenture or the Debentures may be amended to cure any ambiguity, defect or inconsistency, to provide for assumption of the Corporation's obligations to Debentureholders or to make any change that does not adversely affect the rights of any Debentureholder.

13. Defaults and Remedies.

The principal hereof may be declared due prior to the maturity date hereinbefore named upon the occurrence of an Event of Default as the Indenture provides.

An Event of Default is: default for 30 days in payment of interest on the Debentures; default in payment of principal on the Debentures; failure by the Corporation for 90 days after notice to it to comply with any of its other agreements in the Indenture or the Debentures; default in the payment of indebtedness having an outstanding principal balance of \$10,000,000 or more under certain circumstances; and certain events of bankruptcy or insolvency. If an Event of Default occurs and is continuing, the Trustee or the holders of at least 25% in principal amount of the Debentures may declare all

the Debentures to be due and payable immediately. Debentureholders may not enforce the Indenture or the Debentures except as provided in the Indenture. The Trustee may require indemnity satisfactory to it before it enforces the Indenture or the Debenture. Subject to certain limitations, holders of a majority in principal amount of the Debentures may direct the Trustee in its exercise of any trust or power. The Trustee may withhold from Debentureholders notice of any continuing default (except a default in payment of principal or interest) if it determines that withholding notice is in their interests. The Corporation must furnish an annual compliance certificate to the Trustee.

14. Trustee Dealings with Corporation.

Centerre Trust Company of St. Louis, the Trustee under the Indenture, in its individual or any other capacity, may make loans to, accept deposits from, and perform services for the Corporation or its Affiliates, and may otherwise deal with the Corporation or its Affiliates, as if it were not the Trustee.

15. No Recourse Against Others.

A director, officer, employee or stockholder, as such, of the Corporation shall not have any liability for any obligations of the Corporation under the Debenture or the Indenture or for any claim based on, in respect of or by reason of such obligations or their creation. Each Debentureholder by accepting a Debenture waives and releases all such liability. The waiver and release are part of the consideration for the issue of the Debentures.

16. Authentication.

This Debenture shall not be valid until authenticated by the manual signature of the Trustee or an authenticating agent.

17. Abbreviations.

Customary abbreviations may be used in the name of a Debentureholder or an assignee, such as TEN COM (= tenants in common), TEN ENT (= tenants by the entireties), JT TEN (= joint tenants with right of survivorship and not as tenants in common), CUST (= Custodian), and U/G/M/A (= Uniform Gifts to Minors Act).

The Corporation will furnish to any Debentureholder upon written request and without charge a copy of the Indenture, which has in it the text of this Debenture in larger type. Requests may be made to: Corporate Secretary, NORTHWEST NATURAL GAS COMPANY, One Pacific Square, 220 N.W. Second Avenue, Portland, Oregon 97209.

ASSIGNMENT FORM

I/We assign and transfer this Debenture to
[]
(Insert assignee's social security or tax I.D. number)

(Print or type name, address and zip code of assignee)

and irrevocably appoint _____ agent to transfer this Debenture on the books of the Corporation. The agent may substitute another to act for him.

Date: _____

Signature _____
(Sign exactly as your name appears on the other side of this Debenture)

CONVERSION NOTICE

I/We convert \$ _____ in principal amount of the Debenture(s) into Common Stock of the Corporation at the current conversion price.

I/We request that the stock certificate be prepared in the same manner as is this Debenture or, alternatively, in the name of the person specified below:

[]
(Insert other person's social security or tax I. D. number)

(Print or type name, address and zip code of other person)

Date: _____

Signature _____
(Sign exactly as your name appears on the front side of this Debenture)

EXECUTED IN 40 COUNTERPARTS OF
WHICH THIS IS COUNTERPART NO. 36

NORTHWEST NATURAL GAS COMPANY

TO

BANKERS TRUST COMPANY

AND

STANLEY BURG (SUCCESSOR TO R. G. PAGE AND J. C. KENNEDY),

As Trustees under the Mortgage and
Deed of Trust, dated as of July 1,
1946, of Portland Gas & Coke Company
(now Northwest Natural Gas Company)

SIXTEENTH SUPPLEMENTAL INDENTURE

providing among other things for
First Mortgage Bonds, 9.80% Series due 2018

Dated as of November 1, 1988
